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‘Airy Children of Our Brain’:
Emotion, Science and the Legacy of Eighteenth-Century
Philosophy in the Shelley Circle, 1812-1821

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Submitted for the degree of Doctor of Philosophy

Department of English Studies

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ABSTRACT

This thesis examines the physical effects of human emotion and the mind through selected texts written by the Shelley circle, including P. B. Shelley, Mary Shelley, and Lord Byron. Emotion is a significant variable that dominates human existence. For this reason, the concept of emotion continues to intrigue numerous scientists working today in the fields of neuroscience, psychology, biology, and even robotics. With the rise of neuroscientific or cognitive approaches, the materiality of the mind has also been increasingly discussed in literary studies. Critics, including Alan Richardson, Noel Jackson, and Richard Holmes, revisit the mind and English Romanticism drawing on various scientific perspectives. Other critics, such as Adela Pinch, Thomas Pfau, and Richard C. Sha, have also reflected on emotional studies and Romanticism. Finding affinities with this kind of approach, recently defined as ‘cognitive historicism’, my thesis explores the legacy of eighteenth-century mental philosophy and science in the Shelley circle, 1812-1821. I argue that the Shelley circle’s scientific understanding of the mind and emotion is influenced by the materialism, empiricism, and aesthetics prevalent in the eighteenth century, which come into their own in the Romantic period to prefigure our current scientific understanding of emotion.

Chapter One surveys the Shelley circle’s preoccupation with emotion and science and how this is manifest, to varying degrees, in a wide range of critical responses to *Frankenstein* and writings of other members of the group during this period. During the course of this critical survey I develop the concept of the ‘materiality of emotion’, which is used in subsequent chapters to re-examine the Shelley circle’s scientific philosophy and how it is represented in literary texts written by the group. Chapter Two argues that Shelley develops his views of the mind through his atheistic and materialist reasoning. This materialist thinking of the mind in *Queen Mab* exerts a seminal influence on how the Shelley circle thought about the workings of human emotion. Chapter Three focuses on Mary Shelley and contemporary eighteenth- and nineteenth-century scientific debates to suggest that the representation of the mechanism of the body in *Frankenstein* points to the intricate relations between the mechanisms of the mind and emotion and offers a means to heal the schism between French materialism and vitalism. Chapter Four investigates the depiction of emotional effects on the mind in Byron’s *Manfred* and Shelley’s *Alastor*. Both poets draw on scientific reasoning and imagination to come to terms with grief, the failure of love, and the loss of ideals. Chapter Five claims that Shelley’s *Frankenstein* meditates on the effects of physiological elements of the beautiful and the ugly, as well as emotional responses to the sublime science. My final chapter draws on cultural history and gender theory to interpret Byron’s *Don Juan* (Canto One) and Shelley’s *Epipsychidion* in an attempt to reaffirm the beautiful and the sublime in their materialist concept of love or sexuality.

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Terence H. W. Shih, 23 May 2011

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PREFACE

Neuroscientific or ‘Cognitive Historicism’, advocated by critics, such as George Lakoff, Alan Richardson, and Lisa Zunshine, is an emerging approach that has brought science to the fore of British Romantic studies. In addition to Richardson, Noel Jackson and Richard Holmes also draw on British Romanticism, science, and the mind. A discourse of emotions, in my inquiries into Romantic studies, draws on research by Adela Pinch, Thomas Pfau, and Richard C. Sha. My interest in science and emotion is, therefore, contextualised in these scientific and aesthetic trends and especially focused on English Romanticism, as well as its legacy of long eighteenth-century philosophy and science. This concept of science was defined earlier by eighteenth-century philosophers, for example Isaac Watts (1674-1748). In his *Logic*, Watts applies science to ‘a whole body of regular or methodical observations or propositions, ... concerning any subject of speculation’ (II.ii. §9).¹ According to *The Oxford English Dictionary*, the term ‘science’ referred to a ‘state or fact of knowing’ and more broadly as systematised forms of ‘knowledge’ since the fourteenth century. By the eighteenth century science is defined as a set of ‘trustworthy methods for the discovery of new truth within its own domain’ from the eighteenth century onwards.² The concept of ‘natural philosophy’ that was widely used in the eighteenth century approximates our contemporary understanding of science and included studies akin to physics, biology, chemistry, and neuroscience.

Indebted to current neuroscience, my concept of emotion is discussed in the context of

materialist science in dialogue with literature, science, history, and philosophy. Currently, neuroscience comprises psychology, biology, medicine, computer science, and other intelligence-related disciplines, all of which connect the nervous system to the mind and essentially advocate the materiality of the mind. Materialist philosophy fundamentally underpins much of these scientific approaches. In addition to early Greek philosophy, Newtonian mechanistic concepts were grounded in the work of earlier philosophers, including Thomas Hobbes and René Descartes. By the advent of eighteenth-century philosophy of the mind this mechanical world view focused its reflections on the psychological domain.

Mary Shelley's *Frankenstein* forms the central text of my thesis and has been discussed from a variety of critical discourses. *Frankenstein* is used to reflect on Mary Shelley and the Shelley circle's preoccupation with sciences and the human mind. This novel is regarded as a microcosm of eighteenth-century intellectual history. I adopt a materialist view to examine the significance of the human mind and emotion within the Shelley circle. This physical concern with human 'feelings' was initially emphasised by Percy Bysshe Shelley in his Preface and Introduction to *Frankenstein*. The Shelley circle, comprised of Shelley, Mary Shelley, and Lord Byron, first gathered in the summer of 1816 and found their mutual sympathies centred on debates about atheism, materialism, empiricism, and aesthetics. My thesis shows that these concerns are not only present in Mary Shelley's *Frankenstein*, but

form important preoccupations of works written by Byron and Shelley. I articulate this shared philosophical interests of the Shelley circle through what is conceived of in this thesis as the ‘materiality of emotion’.

My introductory chapter, ‘Beyond Literature and Science: The Turn to Emotion in the Shelley Circle’, focuses on the issue of emotion and explains how my concept of the ‘materiality of emotion’ permeates the Shelley circle’s works. This chapter demonstrates not merely this circle’s understanding of the mind and emotion, but situates my argument in the terrain of recent critical interpretations of Romanticism and science, as well as those distinct literary discourses taken up in relation to *Frankenstein*. The philosophy of emotion in *Frankenstein* is conceived of here as this circle’s central concern. This concept of emotion is traced back to Byron’s and Shelley’s early works and through to their later fascination with the relationship between the power of reasoning and emotion. The summer of 1816, when *Frankenstein* was engendered by a ghost-story contest, is the climax of this circle’s collective focus on the significance of emotion and the mind. A wide range of criticism on *Frankenstein* has explored the significance of emotion and how it is expressed through physicality. Psychoanalysis, gender studies, post-colonialism, and Gothic readings have all reinforced the concept of emotion even though the science of emotion has not been a key term used in their critical approaches to fear, anger, terror, anxiety, or grief in the novel. Historical, philosophical, and scientific studies on *Frankenstein* are taken into consideration in my

discussion of the ‘materiality of emotion’. Influenced by long eighteenth-century science, as well as philosophy of the mind, *Frankenstein* became an important text central to the intellectual conversations, within the Shelley circle, about science and emotion.

In Chapter Two, ‘The Science of the Mind: Shelley’s *Queen Mab* (1813)’, I argue that Shelley develops his own views of the mind through his atheistic and materialist reasoning. Shelley’s *Queen Mab*, regarded as his first major poetic work, interrogates a number of materialist issues by representing and exploring various proposed ideas about the mechanisms of the mind. In *Queen Mab*, Shelley revisits his early radical views and employs scientific reason to criticise monarchy, government, and religion under the guise of a fairytale or romance tale. The concept of Shelley’s ‘science of mind’ affirms a scientific worldview and the importance of scientific education. Queen Mab’s instruction to Ianthe’s mind helps to explain Shelley’s beliefs about this form of cognitive education. This investigation of materialist thinking about the mind in *Queen Mab* exerts a seminal influence on the Shelley circle and anticipates Shelley’s ultimate concern with the attainment of earthly happiness.

Chapter Three, ‘New Materialism: Mary Shelley’s *Frankenstein* (1818)’, aims to bridge the gap between French materialism and vitalism or metaphysics from a perspective of emotion. The authorship of *Frankenstein* is a contentious issue, but increasingly the work has been attributed to the Shelleys rather than the sole authorship of Mary Shelley.³ Aside from inquiries into *Frankenstein*’s manuscripts for clues as to its authorship, this claim is further

supported by Shelley's intellectual and poetic preoccupation with materialist science and emotion. Playing a critical role in the Shelley circle's philosophical discussions, *Frankenstein* combines diverse experiments of science, philosophy, and literature with debates about the human mind. Akin to the materialist perspective in *Queen Mab*, *Frankenstein* emphasises scientific ethics and (via philosophical inquiries) those intricate relations between emotion, lived existence, and vitality. The vitalist/materialist debate between John Abernethy and William Lawrence was a critical event that instigated the Shelley circle's reassessment of materialism and metaphysics, as well their own ideas about scientific research and spiritual well-being. This reassessment is understood as a 'new materialism' through which the Shelleys endeavoured to connect materialist philosophy with the subject of emotion.

Building on the concepts of previous chapters, Chapter Four, 'Tracing Emotion: Shelley's *Alastor* (1816) and Byron's *Manfred* (1817)', investigates the relationship between emotion and the mind from a neuroscientific perspective. Shelley's *Alastor* and Byron's *Manfred*, I suggest, demonstrate the similarities between the two poets' respective philosophies of emotion. The frequent conversations between these two poets in the summer of 1816 confirm their communal interest in the mind and emotion. Byron's *Manfred*, written soon after he left the Shelleys for Italy, provides the counterpart for Shelley's *Alastor*. Byron and Shelley employ scientific reasoning to understand emotion, especially grief that derives from a self confronted by the failure of love. Byron's and Shelley's allegorical language not

only echoes eighteenth-century materialism and empiricism, but prefigures twentieth- and twenty-first century neuroscience and genetics. This physiological explanation of emotion is again heightened in Mary Shelley's *Frankenstein*.

Chapter Five, 'A Storm of the Mind: Mary Shelley's *Frankenstein* (1818)', points to the influence of physical appearances on human emotion. Echoing eighteenth-century aesthetics and physiognomy, the Shelleys represent and interrogate physiological elements of the beautiful and the ugly, as well as emotional responses to the sublime and science. As Shelley emphasises the human mind and feelings as the central concern in *Frankenstein*, a number of terms relating to emotion are also described in this novel. Shelley's early poetic quest for mystic science or vitality and a lost self, especially in *Alastor*, was revived in *Frankenstein*. *Frankenstein*, however, more openly expresses the sublime aspects of science and the agitated state of mind caused by this galvanic experimentation. In this chapter, my discussion of the contrast between the beautiful and the ugly is eventually aligned with ideas about the physicality of emotion. I discover that *Frankenstein* articulates the subtle connection between physical beauty and emotion and this aesthetic concern finds an affinity with those sublime aspects of science and cosmetic surgery.

My final chapter, 'Seeking Love: Byron's *Don Juan* (1819) and Shelley's *Epipsychidion* (1821)', argues that Byron and Shelley demonstrate their distinct philosophy of love in Canto One of *Don Juan* and *Epipsychidion*. After Shelley was reunited with Byron in Venice in the

autumn of 1818, there are evident distinctive approaches in their poetic and philosophical treatment of emotion. Distinct from their poetic dialogues in *Alastor* and *Manfred*, Shelley wrote *Epipsychidion* to express his idealistic philosophy of love and this differs from Byron's hedonistic pursuit of love in *Don Juan*. Drawing on cultural history and gender studies, in particular queer theory, this chapter explores love as a transcendental force for happiness in these two poetic works. This philosophy, I claim, challenges orthodox views of love and suggestively liberates sexual desire in the form of homosexuality and extramarital affairs. This materiality of love returns to the 'aesthetic' or emotional context of the beautiful and the sublime. Byron and Shelley, as do current queer critics, demonstrate the necessity of sexuality in their pursuit of love despite the differences in their later philosophies of love, desire, and the mind.

With a greater understanding of current scientific developments in neuroscience and beautology, my thesis revisits key debates in the history and literature of science. The Shelley circle's Romantic texts are connected with science and emotion of their own day and with later scientific developments. My thesis pursues the possibility of secular humanistic science and technological redemption, through cognitive or neuroscientific historicism, to reflect on the inter-relations between immediate beautology (e.g., cosmetic surgery), emotional science (e.g., on grief and terror), categories of beauty (e.g., social mobility and resource distributions), and the pursuit of happiness (e.g., love). All in all, these scientific and philosophical

developments of the mind and emotion are indebted to the philosophical and scientific discussions of the Shelley circle in its heyday.

Notes

¹ See 'Science', def. 1a, 4a, *The Oxford English Dictionary*, 1989 ed., Web, 23 Nov. 2010. Hereafter 'S'.

² See 'S'.

³ Whilst recognising that the writing of *Frankenstein* was a collaborative enterprise between Mary and Percy Bysshe Shelley, for ease of reference the novel will be subsequently referred to as Mary Shelley's *Frankenstein*. For further details, see Note 9 to my Chapter 1.

CHAPTER ONE

Beyond Literature and Science: The Turn to Emotion in the Shelley Circle

The Shelley circle shared an interest in contemporary science and philosophy of the mind and these concerns are reflected in their writings. The eighteenth-century scientific and philosophical legacy bequeathed to the Shelleys¹ and Byron fuelled their interests in the science and the emotions. Recently critics, including Alan Richardson, Noel Jackson, and Richard Holmes, have reread British Romanticism through its various scientific understandings of the mind.² Richardson and Jackson contend that these concepts of both the mind and sensation are evident in the writings of William Wordsworth, Samuel Taylor Coleridge, and John Keats. Alternatively, Adela Pinch, Thomas Pfau, and Richard C. Sha foreground the significance of the emotions in British Romanticism.³ Pinch investigates the history of emotion in relation to empiricism and aesthetics from the late eighteenth century to the early English Romantic period, identifying those theories of emotion at work in British writers, such as Wordsworth and Jane Austen. Pfau's literary discussion of emotions focuses instead on Godwin, Wordsworth, and Keats. Sha and Richardson explore sexuality and aesthetics (the sublime) in relation to the biology of emotion and forbidden love in English Romanticism.⁴ This issue of physiology or neurology of the mind and emotion was first discussed in cognitive neuroscience and philosophy, but recent literary critics have taken an increasing interest in this emergent discourse.⁵ Despite some affinities between my study and

this work on emotion and the mind, few literary critics extensively examine the texts of the Shelley circle and its scientific philosophy of emotion.⁶

My readings focus on texts produced by this circle in the period from 1812 to 1821 and how they were influenced by scientific understanding and philosophy. For example, Shelley's *Queen Mab* (1813) exhibits his initial engagement with philosophical debates and fascination with scientific explanations of the mind and emotion. The summer of 1816, however, marked a turning-point in the Shelley circle's collective preoccupation with these theories of the mind and intensified them. This important year saw the genesis of *Frankenstein* (first published in 1818),⁷ a work renowned for drawing on scientific explorations of emotion. Shelley's own interest in emotion is reflected in his comment on *Frankenstein*: 'This novel rests its claim on being a source of powerful and profound emotion. The elementary feelings of the human mind are exposed to view ...'.⁸ This issue became central among the Shelleys in conversation and as dramatised by the poetic and philosophical dialogue between Shelley's *Alastor* (1816) and Byron's *Manfred* (1817), as well as later between Byron's *Don Juan* Canto I (1819) and Shelley's *Epipsychidion* (1821). These 'feelings of the human mind' go to the very heart of the Promethean theme in Mary Shelley's *Frankenstein*, which also testifies to the Shelleys' shared fascination with scientific accounts of the mind and emotion.⁹ Critics have examined this novel from a wide range of critical perspectives in an attempt to articulate its engagement with a diverse body of literary, philosophical, and scientific knowledge. This

is reflected in Lee Sterrenburgh's remarks that *Frankenstein* represents the dynamic variations of its own textual meaning and Berthold Schoene-Harwood's observation that '[Mary] Shelley's metaphor was never confined to any one single historical event or socio-political circumstance', but becomes 'almost infinitely malleable'.¹⁰

Drawing on Romanticism, emotion, and the science of the mind in the eighteenth century,¹¹ my thesis employs the concept of the 'materiality of emotion' to explore further the issue of 'feelings of the human mind' ('OF', 185) in British Romanticism. For my purposes, I define emotion as an integration of traditional concepts of 'feeling' with more recent psychological definitions, which extend to a state of mind. According to *The Encyclopædia Britannica*, 'emotion' is produced in '[t]he limbic lobe, including the hippocampus', and this 'intense feeling' depending on the stimulated 'regions of the temporal lobes' refers to fear, isolation, disgust, sorrow, ecstasy, or guilt.¹² In order to incorporate emotion into the context of materialist science and to develop my concept of the 'materiality of emotion', I conceive of emotion as a mental phenomenon which changes with the level of electrochemical substance in the brain. More precisely, then, emotion is a series of brain activities agitated by outer sense stimuli or inner neural memories. The outer factors come from the physical surroundings, and the inner factors (such as the mechanism of association) are determined by electrochemical transmissions of neurons, including the imagination.¹³ In a traditional psychological definition, emotion, according to *The Oxford English Dictionary*,

is '[a] mental "feeling" or "affection" (e.g. of pleasure or pain, desire or aversion, surprise, hope or fear, etc.), as distinguished from cognitive or volitional states of consciousness'.¹⁴ In her study of emotions, Pinch 'tend[s] to use "passion," "emotion," and "feeling" almost interchangeably' (*SFP*, 16). According to *The Oxford English Dictionary*, emotion is a noun 'of action' derived from 'ē-movē-re' in French, which combines 'out' and 'to move'.¹⁵ The *Merriam-Webster Dictionary* traces the etymology of 'emotion' to 1579 in 'Middle French, from *emouvoir* to stir up, from Old French *esmovoir*, from Latin *movēre* to remove, displace, from *e-* + *movēre* to move'.¹⁶ In empiricism and aesthetics, emotion is associated with agitations in a physical and societal sense. In John Locke's *Education* (1692), emotion refers to '[a] moving, stirring, agitation, perturbation (in physical sense)'.¹⁷ In British aesthetics, Joseph Addison (1672-1719) and Edmund Burke (1729-1792) tend to regard emotion as '[a] political or social agitation' or 'a tumult, popular disturbance'.¹⁸ Other British philosophers and writers working on the mind, for example Jeremy Taylor (1613-1667), Richard Steele (1672-1729), Lord Kames (1696-1782), Thomas Reid (1710-1796), and Walter Scott (1771-1832), associate emotion with '[a]ny agitation or disturbance of mind, feeling, passion' or 'any vehement or excited mental state'.¹⁹

My concept of 'materiality' is closely aligned to matter. '[M]atter', according to *The Oxford English Dictionary*, refers to 'physical substance as distinct from spirit, mind, qualities, actions, etc.'. ²⁰ In certain philosophical debates, terms such as 'spirit', 'soul',

‘mind’, or even ‘language’ per se are no longer distinct from matter or materiality. In *An Essay Concerning Human Understanding* (1690), Locke points up debates of ‘the Soul’s Materiality’.²¹ Equally, in *St. Irvyne* (1811), Shelley enquires into the close relationship between ‘human nature’ and ‘materiality’.²² In ‘On the Nature of Virtue’ (1816), Shelley emphasises what I understand as the concept of the ‘materiality of emotion’, when he argues that ‘emotions’ derive from human ‘nature’ and are caused directly by physiological instincts: ‘The immediate *emotions* of his [man’s] *nature*, especially in its most *inartificial* (sic) *state*, prompt him to inflict pain, and to arrogate dominion’ [emphasis added] (qtd. in *ER* 56).

Subsequently, Charles Darwin pursued a scientific origin of emotion expounded in his *The Expression of the Emotions in Man and Animals* (1872) and William James, founder of modern experimental psychology, also examined emotion in the context of materiality.²³ In his *The Principles of Psychology* (1890), James affirms: ‘Now the general causes of the emotions are indubitably physiological’ (*PP*, 1065). Notably, Darwin’s and James’s physiological investigations into the mind were built upon eighteenth-century empiricist aesthetics and previous philosophies of the mind, which remain evident in our current studies of the mind and emotion.

Integrated with ‘materiality’ and scientific ideas of emotion, my concept of emotion relates to the operations of the mind or the levels of neurotransmitters which dominate human internal feelings as well as external behaviour. Such behaviour or facial expressions are

dominated by our neural impulses and are defined by commonplace terms, such as fear, anger, grief, and rapture.²⁴

My own approach finds a context in the emergent discourse of neuroscience in recent long-eighteenth-century studies,²⁵ but also focuses on close textual readings alert to the writer's sensibility to these issues in his or her work. Whilst new historicism and cultural historicism explore the significant connections between the present and past, a cognitive or neuroscientific historicism draws on early brain studies, philosophical, and literary texts. For example George Lakoff and Mark Johnson, in their *Metaphors We Live By* (1980), re-read literary works and the history of their reception from a cognitive scientific perspective.²⁶ Even so, the 'cognitive revolution', as Richardson puts it, started in the 1950s and triggered interdisciplinary dialogues between cognitive science and the humanities.²⁷ Like literary critics who focus on the legacy of the eighteenth century in Romanticism,²⁸ Richardson – echoing Ellen Spolsky, Mary Crane, Lisa Zunshine, and F. Elizabeth Hart – strives to establish 'Cognitive Historicism' as a discipline and has developed his early engagement with the eighteenth-century science of the mind and British Romanticism.²⁹ Sensitive to this paradigm shift, I re-examine the Shelley circle's works and its philosophy from the perspective of what I have termed as the 'materiality of emotion'.

In my readings of *Frankenstein* and the poetic works of Byron and Shelley, drawing on this concept of the 'materiality of emotion', I reassess the interactions between the self and

the physical world. Numerous studies have touched on the complexity of human emotion in *Frankenstein* even if critics have not emphasised the term 'emotion' in their examination of the relationship between the novel, science and philosophy in the long eighteenth century. In spite of some critical interest in representations of emotion in *Frankenstein*, critics often choose instead to foreground social or political issues within the text. Generally, these critical discourses articulate the negative aspects of emotion centred on the repression of gender, class, and race. Such critical perspectives on *Frankenstein* neglect a thorough examination of the centrality of emotion and its relationship to materialism in the novel.

With its subtitle of the 'Modern Prometheus', *Frankenstein* reflects the collective spirit of the Shelleys and typifies this circle's concern (including Byron's) with a Promethean theme. The encounter between Shelley and Byron in Switzerland in the summer of 1816 signals a significant intellectual reciprocity between the two poets and their shared fascination with human emotion. Llewellyn M. Buell notes that Byron wrote 'Prometheus' in July 1816 and this influenced his own writing of *Manfred* and Shelley's *Prometheus Unbound*.³⁰ Shelley's 'Hymn to Intellectual Beauty', re-written on the Continent during that significant summer, presumably also spoke of his intellectual friendship with Byron.³¹ Their regular conversations at Lake Geneva testify to their further concern about human emotion and its place in physical or materialist discourse.

Both Shelley and Byron avowed unorthodox world views.³² Shelley's interest in

emotion is manifest in his first published work – a Gothic romance entitled *Zastrozzi: A Romance* (1810) – where he writes:

But *sympathy and congeniality of sentiment*, however necessary to that *love* which calms every fierce *emotion*, fills the *soul* with a *melting tenderness*, and without disturbing it continually possesses the *soul*, was by no means consonant to the ferocious *emotions* [Emphasis added]³³

Similar to Greek and Shakespearean tragedies, which Shelley knew well, *Zastrozzi* examines uncontrollable emotions such as envy, rage, and passion. This young Shelley depicts emotions of love and the workings of ‘emotions’ in the ‘soul’ through an image of ‘melting tenderness’ (Z, 68). This fascination with the mystery of the soul later led Shelley to further scientific studies of the mind.

In his first major work – *Queen Mab: A Philosophical Poem* (1813) – to advocate reason and a philosophy of the mind, Shelley demonstrates his radical ideas both in the main text and the Notes in an attempt to celebrate the full freedom of human nature.³⁴ A similar kind of pursuit reappears later in his poem, *Alastor; or, The Spirit of Solitude* (1816). Charles E. Robinson notes the influence of *Alastor* on Byron’s *Manfred* (1817).³⁵ *Manfred* was started in the later summer of 1816 after the dispersal of this circle in Switzerland on 20 August 1816. The poetic debate staged between *Manfred* and *Alastor* is also re-imagined in Shelley’s *Julian and Maddalo: A Conversation*, written soon after Shelley was reunited with

Byron in Venice in August of 1818. This philosophical debate relates to Byron's scepticism and Shelley's idealism, which also re-emerges in a later poetic dialogue between Byron's *Don Juan* and Shelley's *Epipsychidion*. My own argument singles out the issue of 'emotion and science' as its starting-point and, through a discussion of *Frankenstein* and poetic works by Byron and Shelley, identifies the Shelley circle's ultimate aspiration to the attainment of happiness. In so doing, my thesis traces the intricate connections between the mind, emotions, self-quest, physical beauty, and love in the thinking of the Shelley circle between 1812 and 1821.

More significantly, I trace affinities between scientific discussions of emotion and philosophies of feelings and sensibilities in my critical readings of *Frankenstein* and other related poems by Shelley and Byron. My approach is alert to the influence of the Enlightenment legacy of philosophical and scientific discourse on Romanticism. The Gothic tradition and scientific experiment clearly fascinated the reader in Shelley's own time as much as it has later audiences. The mystery of emotional agitations in the mind or the self becomes the key issue for many of the texts written by the Shelleys. Shelley, for instance, endeavoured to understand 'the unseen world' or the principle of emotions in his poetry as he does, for instance, in *Epipsychidion*.³⁶ This renewed critical focus on emotion and its representation produces new ways of reading *Frankenstein*. The Preface to *Frankenstein*, commonly assumed to be written by Shelley,³⁷ notes that great works (such as *The Iliad*,

Shakespeare's *The Tempest* and *Midsummer Night's Dream*, and Milton's *Paradise Lost*)

consist of complex 'human feeling' and that part of the motivation for writing is to 'exercis[e] any untried resources of mind'.³⁸ This sense of 'human feeling' closely relates to human emotion in the Shelleys' own time. In David Hume's discussion of passions, Pinch notes that feelings derive from emotions, such as hatred and love, and can dominate the individual's mind:

He [Hume] stresses that the claims of individuals are subordinate to the feelings that visit them from without: "Hatred, resentment, esteem, love, courage, mirth and melancholy; all these passions I feel more from communication than from my own natural temper and disposition." (*SFP*, 1)

Shelley's own writing and thinking influenced those descriptions of emotion throughout *Frankenstein*. According to Joseph Barrell, Shelley's *Queen Mab* focuses on 'emotionalism' in search of an ideal society.³⁹ One direct influence on *Frankenstein* would have derived from Mary Shelley's discussions with Shelley and her own reading of his *Queen Mab* on 6 October 1814.⁴⁰ Other contemporary discourses on emotion also helped to shape *Frankenstein*. The works of Locke and Hume provided the Shelleys with both rich background knowledge and details for their narrative depiction of the 'materiality of emotion'. Examining 'Sciences of the Mind', Laura Otis points out that nineteenth-century mental physiologists were greatly indebted to Locke and Hume, but the study of the mind did not

become a new branch of philosophy until the 1830s with the advent of philosophers like Herbert Spencer (1820-1903) and George Henry Lewes (1817-1878).⁴¹ Both of them contributed to scientific discussion about ‘neurophysiology to develop their theories of mind’ (‘SoM’, 325). It is striking that later scientific investigations into the emotions were pre-empted by eighteenth-century aesthetics, physiognomy, and empiricist science.

Frankenstein is both of its own historical context and a text which encapsulates our own contemporary discussion of human emotions. In their own time, the Shelleys were successors to the sentimentalism of Mary Shelley’s parents, William Godwin and Mary Wollstonecraft. Godwin’s style in *Fleetwood; or, The New Man of Feeling* (1805)⁴² exerted a considerable influence on *Frankenstein*, as Marilyn Butler argues:

But Mary’s [Mary Shelley’s] great debt intellectually and emotionally is probably to [Godwin’s] *St Leon* (1799), which anticipates *Frankenstein*’s themes of science and gender, its plot, and its central figure: in both novels, a selfish intellectual trades domestic happiness and marital love for the chimaeras of scientific knowledge, success, and power.⁴³

William D. Brewer, in his *The Mental Anatomies of William Godwin and Mary Shelley* (2001), reaffirms the influence of Godwin’s mental philosophy on Mary Shelley as well as *Frankenstein*: ‘Mary Shelley praises her father’s ability to project himself into his novels’ characters in order to anatomize “their secret hearts [mental activity]”’.⁴⁴ In ‘Philosophical

and Literary Sources of *Frankenstein*' (1965), Burton R. Pollin argues that when understanding the complexity of *Frankenstein*, 'Shelley knew, better than any one else, how richly varied were the works of literature and philosophy reflected in the novel'.⁴⁵ Schoene-Harwood goes on to note that *Frankenstein*'s legacy is 'the literary and philosophical heritage of the Enlightenment, Romanticism, and the French Revolution, as well as Europe's deep-rooted cultural indebtedness' to both 'classical mythology and the Bible' (*MSFRG*, 30). Eighteenth-century studies of the 'science of man', sentimentalism, and aesthetics also precisely bear on *Frankenstein* in relation to its treatment of emotion.

Since 1817, *Frankenstein* has attracted a wealth of critical responses, both positive and negative. The earliest review, written by Shelley, entitled 'On *Frankenstein*' (1817), was posthumously published in *The Athenæum Journal of Literature, Science and the Fine Arts* on 10 November 1832.⁴⁶ Surprisingly, positive reviews appeared in the *Quarterly Review* (1818), *Edinburgh Magazine* (1818), *Gentleman's Magazine* (1818), and *Knight's Quarterly* (1824).⁴⁷ Dissenting from the praise *Frankenstein* received from Thomas Love Peacock and Walter Scott, the Tory *Quarterly Review* condemned the novel as the text of 'a man who perverts his ingenuity and knowledge to the attacking of all that is ancient and venerable in our civil and religious institutions'.⁴⁸ This condemnation from the *Quarterly Review* did not appear in the review on *Frankenstein*, in January 1818, but in a note on the review on Leigh Hunt's *Foliage*: 'At Eton we remember him [covertly, Shelley] notorious for setting fire to

old trees with burning glasses....’⁴⁹ This novel in the eyes of the Tory *Quarterly Review*, ‘inculcat[ed] no lesson of conduct, manners, or morality’.⁵⁰

However, the Shelleys were concerned more with the dynamics of human emotions and less with moral codes. Like the emphasis on emotion in his review, Shelley, in the Preface to *Frankenstein*, emphasises the significance of ‘human nature’ (‘FP’, 5). This sense of ‘human nature’ is closely related to human emotions. In this Preface, Shelley points out that the primary intention of writing *Frankenstein* is to link ‘a physical fact’ – about which the author was particularly enlightened by Erasmus Darwin and some German physiological writers – to ‘the elementary principles of human nature’ (‘FP’, 5). This reveals that the Shelleys linked physicality to the human mind. Shelley emphasised that *Frankenstein* was intended to awaken the reader to ‘the working[s] of passion out of passion’ and ‘[t]he elementary feelings of the human mind ... exposed to view ...’ (‘OF’, 185). More notably, in the novel, the Shelleys catalogue a spectrum of human emotion both positive and negative and make reference to sensations, the mind, feelings, and emotions.⁵¹ With the accumulation of eighteenth-century scientific knowledge (empiricism, aesthetics, physiognomy), the mystery of ‘human nature’ was of interest to writers and those philosophers of the ‘mind’. In the eighteenth century, the ‘science of man’ was specifically a study of human emotions.

Biographically centred criticism further affirms an interconnection between *Frankenstein* and the interests of the wider Shelley circle. Pollin argues that in June 1816 ‘...

many ideas [in *Frankenstein*] were being exchanged by the group of five: Byron, his callow physician, Dr. John Polidori, Shelley, Mary, and her step-sister, Jane Clairmont' ('PLSF', 98). In her 1993 Introduction to *Frankenstein*, Butler notes that these concepts of the human mind were derived from 'Shelley's reading in Berkeley and Hume' and other 'traditions of thinking about mind' and shared in the conversations between Shelley and his physician, William Lawrence ('BIF', xvii). Holmes details the 1815 encounter between Lawrence and Shelley and how later Lawrence's materialist ideas were introduced to Shelley: 'It was also Lawrence, with his unusual knowledge of French and German experimental medicine, who helped turn the Shelleys' joint scientific speculation along a more controversial path' (AW, 311).

Scientific interest in emotion existed early in ancient thought and became a crucial issue in the eighteenth century.⁵² In recent years, discussions of emotion and the mind have become popular in current studies of neuroscience, psychology, biology, philosophy, and medicine. Through his pertinent ideas of interdisciplinarity, Richardson draws together ideas about the brain and the mind to conclude: 'At a time when biological accounts of mind are again becoming ascendant, better knowledge of the embodied psychologies of the past may provide not just a richer and more accurate history, but a more useful one' (*BRSM*, 185).

Current scientists endeavour to locate the mechanism of emotion. As a scientific expert on the subject of the brain and emotion, Joseph E. LeDoux, for example, conceives of the relationship between emotion and memory through cellular and molecular mechanisms.⁵³ In

The Emotional Brain: The Mysterious Underpinnings of Emotional Life (1996), LeDoux indicates that Stanley Schachter and Jerome Singer, American social psychologists, revived the discussion of ‘physiological responses in emotion (sweaty palms, rapid heart beat, muscle tension)’ in the early 1960s (*EB*, 47). Scholars working in the field of emotional science, for example Dylan Evans, William Lyons, and Susan A. Greenfield, provide evidence from the perspectives of both philosophy of the mind and neuroscience to support those interrelations between emotion and materiality speculated about by the Romantics.⁵⁴ Jean Piaget’s cognitive psychology draws on modern psychology and traditional empiricism to examine the relationship between the mind and the world.⁵⁵ All of these examples forge a connection between the classical philosophy of the mind and cutting-edge neuroscience. Like the Shelley circle, these later scientists of emotion are fascinated with the affinity between life, emotion, and science. The key difference is that the writers of the Shelley circle regard language as intrinsic to the intricate phenomena of human emotion and, ultimately, the meaning of human existence and self-identity. This power of language is clearly expressed in the episode from *Frankenstein* when the Monster finds these three works of literature, *Paradise Lost*, a volume of *Plutarch’s Lives*, and the *Sorrows of Werter*:

I [the Monster] can hardly describe to you [Frankenstein] the effect of these books. They produced in me an infinity of new images and feelings, that sometimes raised me to ecstasy, but more frequently sunk me into the lowest

dejection. (*F*, 86)

Later in his 'On Life', Shelley re-affirms this close relationship between language and the mind: 'Thoughts and feelings arise, with or without our will, and we employ words to express them'.⁵⁶ *Frankenstein* emphasises the Monster's sentimental self, as 'What am I?' becomes his regular self-interrogation. Science provides biochemical evidence to explain emotion, but is still unable entirely to explain the complexity of emotion captured by those descriptions in *Frankenstein*. My concept of the 'materiality of emotion', elaborated in this thesis, aims to bridge the gap between Romantic idealism, scientific rationalism, and pragmatism.

There is no doubt that enormous critical interest in *Frankenstein* has grown in recent decades. Some influential issues are reflected in recently published casebooks, including Johanna M. Smith's *Frankenstein* (2000) and Timothy Morton's *A Routledge Literary Sourcebook on Mary Shelley's Frankenstein* (2002).⁵⁷ Since the 1960s literary scholars (including James Rieger, Pollin, M. K. Joseph, Harold Bloom, and Christopher Small) have lent academic respectability to *Frankenstein* through their critical works. In his Afterword to *Frankenstein* (1965), Bloom points to the conflicting 'emotions' between Frankenstein and the Monster as 'the Romantic mythology of the self'.⁵⁸ In his Introduction to *Frankenstein* (1969), Joseph demonstrates the relationship between 'electricity' and 'spiritual love' in Shelley's philosophy and the 'three concentric layers' of narration in *Frankenstein*, which relate to the perspectives of Walton, Frankenstein, and the Monster.⁵⁹ Such layers can be

identified with the progressive scheme of natural philosophy, from the outer world to the inner world, that is to say, from a 'man of science' to the 'science of man'.

This 'science of man' is the precursor of modern psychology and emotional science. Early criticism conjures with the issue of emotions, and my sense of the 'materiality of emotion' is reflected in Douglas Bush's remark that 'Berkeley and Newton are met together, Plotinus and Edison have kissed each other' (qtd. in 'JIF' viii). In 1987, Chris Baldick's *In Frankenstein's Shadow: Myth, Monstrosity, and Nineteenth-Century Writing* reassessed *Frankenstein* as a 'modern myth'.⁶⁰ Baldick's valuable contributions to debates about the work of Mary Shelley's text and the 'myth of modernism' has been built upon by Marc Rubenstein, Paul Sherwin, George Levine, Sterrenburg, and Franco Moretti. This revised sense of *Frankenstein* happened to such an extent that, as Anne K. Mellor noted, there 'is rapidly becoming a new critical and scholarly consensus concerning the centrality of Mary Shelley's novel to our understanding of both the Romantic "spirit of the age" and of literary modernism'.⁶¹ Yet this sense of *Frankenstein* as a 'modern myth' was contested by Mellor's *Mary Shelley: Her Life, Her Fiction, Her Monsters* in 1988. Mellor claims that Baldick's critical book demonstrates 'neither a study of influence nor a study of ideology' ('RIFS', 193), nor explication of 'a modern myth' ('RIFS', 195).

In contrast with Baldick's mythic interpretation, Fred Botting's monograph, *Making Monstrous: Frankenstein, Criticism, Theory* (1991), provides a systematic psychoanalytic

reading which challenged traditional readings.⁶² Botting defends *Frankenstein* as good literature by clarifying its ‘unifying motive’ which Bloom and Sylva Norman had doubted (MM, 72). Botting continues that the ‘knowledge of this self’s intentions, attitudes and emotions’ are central to unifying the text (MM, 73). Additionally, he notes that some critics exaggerate gender differences in *Frankenstein* as ‘[t]he women in *Frankenstein* rarely speak out in voices of discontent and certainly do not clamour for better treatment or equal status’ (MM, 100) and, as a result, in this novel ‘gender relations are not sustained as polar oppositions’ (MM, 101).

As a consequence of these diverse literary discourses, *Frankenstein* has been read more recently from the perspectives of gender, science, science fiction, as well as postcolonial and cultural studies. In his casebook of *Frankenstein* (1995), Botting focuses his critical attention on the relationship between the text and gothic genre and draws supporting arguments from other discourses (politics, feminism, science, psychoanalysis, post-colonialism). A year later, J. Paul Hunter’s casebook of *Frankenstein* also reflects some of these recent critical trends from post-structuralism, gothic genre studies, feminism, science, autobiography, and imperialism. Some other influential critics combine feminist approaches with other related earlier critical methods, including autobiographical, socio-political discourses, and readings of gothic genre.⁶³

There have, however, been other more scientifically focused interpretations of

Frankenstein which have directly influenced my own approach to the writings of the Shelley circle. In 1963, Rieger analysed *Frankenstein* as expressing an anti-humanist sentiment rather than as a work of science fiction. As a refutation to this kind of reading, Joseph argues that scientific knowledge from Newton, Volta, Galvani, Erasmus Darwin, and Humphry Davy influenced Mary Shelley's scientific understanding. Later critics, like Butler and Maurice Hindle, also detect the relationship between *Frankenstein* and this contemporary science. In an Introduction to *Frankenstein*, Hindle discusses *Frankenstein* in terms of Enlightenment thought, science, philosophy, and society. As Hindle suggests, the radical science of *Frankenstein* is derived from Davy's 'electrochemistry', empiricism, and galvanism, which challenged a traditional theological world view.⁶⁴ By the 1970s *Frankenstein* was, eventually, recognised as a work of 'science fiction', in critical writings by Robert M. Philmus (1970), Brian Aldiss (1973), Martin Tropp (1976), and Robert Scholes and Eric S. Rabkin (1977).⁶⁵

With the rise of interdisciplinary exchanges between literature and science, *Frankenstein* criticism has, increasingly, detected an affinity between *Frankenstein* and science fiction. The very reason that *Frankenstein* has been gradually established in academic debates about '[t]he body, medicine and science', according to Morton, is because of those Foucauldian readings which 'deal with issues of materiality and the physical universe' (ARLS, 80). In Morton's edited collection of essays on *Frankenstein*, Marilyn Butler, Tim Marshall, Alan Rauch, and Paul Youngquist rethink the novel's relation to issues pertaining to the body,

medicine and science.⁶⁶ Even Theodore Ziolkowski and Ray Hammond emphasise ‘the novel’s representation of scientific irresponsibility and the consequences thereof’ (*ARLS*, 248). These readings share an affinity with those of the late 1970s when Sam N.

Lehman-Wilzig connected cybernetics with the context of *Frankenstein*.⁶⁷

More recently, Donna Haraway’s influential ‘A Cyborg Manifesto’ (1991) suggests that Frankenstein’s Monster instigates another more immediate debate about the relationship between humans and machines to develop the concept of ‘posthumanism’.⁶⁸ As Smith rightly observes, scientific readings of the novel develop from the 1970s onwards and link ‘Victor’s science’ to scientific investigations (Samuel Vasbinder), to ‘Rosicrucian science (Marie Roberts), to [D’]Holbach’s *System of Nature* (McWhir), to radical science (Marilyn Butler) and Romantic science (Marina Benjamin), and to the debates in Romantic science over vitalism and materialism (Maurice Hindle, Martin Willis)’ (*MSFCAT*, 248). Regrettably, the myth of *Frankenstein* tends to be interpreted as a scientific allegory of potential scientific disasters. Such an ‘insidiously suggestive mode’, as Schoene-Harwood suggests, permeates Hammond’s *The Modern Frankenstein: Fiction Becomes Fact* (*MSFRG*, 155). Bernard E. Rollin and Jon Turney continue to read *Frankenstein* as a scientific metaphor.⁶⁹ Rollin’s *The Frankenstein Syndrome: Ethical and Social Issues in the Genetic Engineering of Animals* (1995) approaches scientific ideology and ethics on animal rights from a philosophical perspective without touching on the text or its background. Rollin advocates that genetic

engineering ought not to be regarded as a Frankensteinian disaster. Instead, he suggests that ‘any meaningful attempt to place it under meaningful social control or to orchestrate practicable social policies’ can be unattainable (FS, 4). Notably, the publication of Vasbinder’s study generated fresh interest in *Frankenstein* and the history of science. In his *Scientific Attitudes in Mary Shelley’s Frankenstein* (1976), Vasbinder complains that ‘criticism has generally concentrated on the moral fable that *Frankenstein* represents and has ignored the problem of the science as a side issue’ and argues that ‘[w]ith the emergence of speculative fiction as a legitimate area of concern for critics in the academic arena, *Frankenstein* must be evaluated in an entirely new light as an early work of this genre [science]’.⁷⁰ Vasbinder stresses that ‘[u]nless the critic is well acquainted with the scientific matters of the age [the eighteenth century] much of the science that forms the basis of *Frankenstein* will remain invisible’ (SAMSF, 1).

This emergent branch of *Frankenstein* studies rooted in the history of science in the last two decades is also represented by Marshall, in *Murdering to Dissect: Grave-Robbing, Frankenstein, and the Anatomy Literature* (1995), who especially emphasises eighteenth- and early nineteenth-century anatomy and related laws as a context in which to read the 1831 edition of *Frankenstein*. Marshall’s study further signposts the close connection between *Frankenstein* and contemporary science.

In other recent studies, Enlightenment science and philosophy have provided the

context of intellectual history in which to examine *Frankenstein*. Significantly, Botting attempts to suture science and literature together to heal the oppositions between science and alchemy, art, and humanism. In his discussion of ‘*Frankenstein* and the Art of Science’, Botting notes that literary critics tend to define science as ‘destructive, irresponsible and antisocial’ (MM, 166) and illuminates the concept of science in that period as ‘a powerful force linked with the aspirations and fortunes of enlightened human progress’ (MM, 169).

These scientific perspectives signal *Frankenstein* as a vibrant text rich with possibilities for a critical analysis of the relationship between emotion and science.

Frankenstein studies have become an arena of both science fact and science fiction. Apart from feminist, psychoanalytic and gothic perspectives, some critics shift their attention to cultural, cyborg, and queer studies. The genre of Gothic and science fiction, in recent years, have continued to fascinate critics of *Frankenstein*, including Bernice M. Murphy (science, patriarchy, and violence), Jules Law (gothic violence and virtual reality), R. J. Frost (feminist approach in science fiction) and Frank A. J. L. James and J. V. Field (Regency period). These issues of science and gender have also caught the attention of Mellor (studies of race), Anne W. Gilfoil (the role of science) and Andrew Butler (‘homosociality’ and homosexuality).⁷¹ Often these critics blur the boundary between science and literature. *Frankenstein* provides an inviting platform for readings by those critics who are concerned with the advances of science and technology. My own discussion of *Frankenstein* focuses specifically on

eighteenth-century philosophy of emotion and its relation to the Shelley circle's scientific interests and ideas as represented in this novel.

Those textual readings of *Frankenstein* that see the novel operating in the genre of science fiction are akin to the Shelley circle's concern with the agitation of human emotion.⁷² Denise Gigante, in her 'Facing the Ugly: The Case of *Frankenstein*' (2000), examines the ugly (a kind of lethal outer material to emotion) in eighteenth-century aesthetics (especially Edmund Burke and Immanuel Kant).⁷³ Gigante's analysis owes something to Barbara Claire Freeman's comparison between Kant's philosophy and *Frankenstein* and focuses on the influence of eighteenth-century philosophy on *Frankenstein*. In 'Frankenstein with Kant: A Theory of Monstrosity or the Monstrosity of Theory' (1987), Freeman argues that the Kantian 'sublime' anticipates *Frankenstein*, in particular in those sublime scenes in nature described in *Frankenstein*, for example 'lightning flashes', 'mountain peaks', and 'deep chasms', which trigger, as Kant points out, 'melancholy meditation'.⁷⁴ Similar to Gigante's examination of the inter-relationship between the Burkean sublime and physical ugliness, Scott J. Juengel's reading of *Frankenstein* locates the Monster's ugliness and human compassion in physiognomy.⁷⁵ In his 'Face, Figure, Physiognomics: Mary Shelley's *Frankenstein* and the Moving Image' (2000), Juengel is aware that the Monster is destined to be the 'visually other' and employs Lavater's science of physiognomy to examine human countenance in the text.⁷⁶ Nancy Yousef's *Isolated Cases: The Anxieties of Autonomy in Enlightenment*

Philosophy and Romantic Literature (2004) explores the individual's mental development in relation to the case of Frankenstein's monster.⁷⁷ Janis McLarren Caldwell is also interested in human nature and specifically discusses this issue in *Frankenstein* in a chapter entitled 'Science and Sympathy in *Frankenstein*' in her book *Literature and Medicine in Nineteenth-Century Britain: From Mary Shelley to George Eliot* (2004).⁷⁸ William S. Haney II contributes a chapter on 'Frankenstein: The Monster's Constructedness and the Narrativity of Consciousness' in his *Cyberculture, Cyborgs and Science Fiction: Consciousness and the Posthuman* (2006) to examine consciousness in *Frankenstein*.⁷⁹ More recently, Holmes's *The Age of Wonder* (2008) dedicated a chapter to 'Dr Frankenstein and the Soul' to explore the relation between sensations and the 'soul' in the contexts of Romantic medicine and *Frankenstein*.⁸⁰ It appears that critics have a burgeoning interest in exploring the science of the mind in *Frankenstein* specifically and the Shelley circle more generally. These recent perspectives help to shape my own argument about emotional science in *Frankenstein*, although my inquiry is centred on the affinity between complicated human emotions in *Frankenstein* and a materialist worldview.

Academic societies have also played important roles in the synthesis of science and the humanities (literature). Historically, the fierce debates between scientists (Thomas Henry Huxley) and literary scholars (Matthew Arnold) opened up a gulf between science and the humanities in the late Victorian period. This academic rift was, in part, healed by C. P. Snow

and Thomas Kuhn. In *The Two Cultures* (1959), disputed by F. R. Leavis in his *Two Cultures? The Significance of C. P. Snow* (1962),⁸¹ Snow advocates the spirit of the interdisciplinary studies between science and the humanities.⁸² Kuhn's concept of 'paradigm shift' in *The Structure of Scientific Revolutions* (1962) reaffirms the possibility of cross-fertilisation between science and the humanities.⁸³ In his reading of *Frankenstein*, Morton extends Kuhn's concept: 'The Romantic period was a time of tremendous paradigm shifts in science'.⁸⁴ After Kuhn, Aldous Leonard Huxley, author of *Brave New World* (1932) and grandson of Thomas Huxley, published *Literature and Science* (1963) in an attempt to close the gap between what had become two distinct fields. Huxley also senses the intellectual conflicts between (Romantic) literature, culture, and science:

Science sometimes builds new bridges between universes of discourse and experience hitherto regarded as separate and heterogeneous. But science also breaks down old bridges and opens gulfs between universes that, traditionally, had been connected. Blake and Keats, as we have seen, detested Sir Isaac Newton because he had cut the old connections between the stars and the heavenly host, between rainbows and Iris, and even between rainbows and Noah's Ark, rainbows and Jehovah—had cut the connections and so de-poetized man's world and robbed it of meaning.⁸⁵

It is clear that science should be developed in conjunction with culture instead of breaking

with it. Since 1947, the British Society for History of Science (BSHS) has launched annual academic conferences and invited contributors to enrich the history of science.⁸⁶ The Wellcome Trust, in the UK, is currently the leading academic institution for the history of science, medicine, and technology.⁸⁷ 4S (the Society for Social Studies of Science), founded in 1975, opened up intellectual exchanges between social studies and science.⁸⁸ In recent years, this society has invited academics in literature and arts to participate further in scientific dialogues. The importance of these interdisciplinary studies between science and literature was recognised by the SLSA (the Society for Literature, Science, and the Arts), which has organised annual conferences in North America since 1986 and established in 1993 its own influential journal, entitled *Configurations*.⁸⁹ Following this trend, the British Society for Literature and Science (BSLS) was established in 2006 and has since hosted annual conferences throughout the UK. In step with these developments in academic research, the International Society for Cultural History (ISCH) was founded in the UK in July 2007.⁹⁰ Given this accumulation of research into Romanticism and science, as well as those scientific studies of *Frankenstein* over the past decades, it is even more surprising how relatively few critics have connected science, emotion, and the Shelley circle. Through my concept of the ‘materiality of emotion’ the major philosophical, scientific, and poetic dialogues between the selected literary works of Byron and the Shelleys will be examined.

My next chapter, ‘The Science of the Mind: Shelley’s *Queen Mab* (1813)’, argues that

Shelley develops his views of the mind through his atheistic and materialist reasoning. This materialist thinking about the mind exerts a seminal influence on the Shelley circle. In Chapter Three, 'New Materialism: Mary Shelley's *Frankenstein* (1818)', *Frankenstein* is understood as incorporating diverse experiments of science, philosophy, and literature into the discourse of emotion. A discussion of the mechanism of the body, in *Frankenstein*, helps further to connect these operations of the mind and emotion. My Chapter Four, 'Tracing Emotion: Shelley's *Alastor* (1816) and Byron's *Manfred* (1817)', investigates emotional influences on the mind. Byron and Shelley employ scientific reasoning to understand emotion. Their allegorical language not only echoes early materialism and empiricism, but prefigures neuroscience and genetics. This issue is also reflected in *Frankenstein*, which analyses the relationship between emotion and sensation. Chapter Five, 'A Storm of the Mind: Mary Shelley's *Frankenstein* (1818)', points out further connections between the physical body and human emotion. Echoing eighteenth-century empiricist aesthetics and physiognomy, the Shelleys represent further physiological aspects of the beautiful and the ugly as well as emotional responses to terror as an aspect of the sublime. My sixth chapter, 'Seeking Love: Byron's *Don Juan* (1819) and Shelley's *Epipsychidion* (1821)', suggests that Byron and Shelley demonstrate their distinct philosophies of love in Canto One of *Don Juan* and *Epipsychidion*. Drawing on cultural history and queer studies, this chapter examines the inter-relations between science, literature, and sexuality to explore the materiality of queer

love in *Don Juan* Canto I and *Epipsychidion*.

My thesis examines the inter-relations between the body and the mind, as well as the material and the ‘non-material’.⁹¹ I employ the concept of the ‘materiality of emotion’ as a critical lens to read the eighteenth-century philosophical and scientific legacy bestowed to the Shelley circle and how the Shelleys and Byron re-imagined its inheritance. In contemporary society, emotional issues are often integrated into issues of self-identity, the relationship of physical beauty with social acceptance and, lastly, the secular values of happiness with well-being. These past and present materialist concerns of scientific endeavour speak to, and are spoken to by, the Shelley circle and its fascination with emotional science, aesthetics, and the pursuit of love in the Romantic and post-Romantic era.

¹ In my discussion, the Shelleys are Percy Bysshe Shelley and Mary Wollstonecraft Shelley. Hereafter Shelley refers to the former and Mary Shelley the latter. Shelley is central to this circle as Shelley's enthusiasm for science and philosophy, I find, gives impetus to his circle's scientific explorations of the mind and emotion.

² Differing from Richardson's and Jackson's scientific emphasis on the issue of the mind, Holmes gives wider explorations of Romantic science. Nevertheless, Holmes's chapter of 'Dr Frankenstein and the Soul' examines more debates of the mind in a scientific context. Alan Richardson, *British Romanticism and the Science of the Mind* (Cambridge: Cambridge UP, 2001); *The Neural Sublime: Cognitive Theories and Romantic Texts* (Baltimore: Johns Hopkins UP, 2010). Hereafter *BRSM* and *NS*. Noel Jackson, *Science and Sensation in Romantic Poetry* (Cambridge; New York: Cambridge UP, 2008). Richard Holmes, *The Age of Wonder: How the Romantic Generation Discovered the Beauty and Terror of Science* (London: Harper, 2008) rpt. 2009, 305-36. Hereafter *AW*.

³ Adela Pinch, *Strange Fits of Passion: Epistemologies of Emotion, Hume to Austen* (Stanford: Stanford UP, 1996). Hereafter *SFP*. Thomas Pfau, *Romantic Moods: Paranoia, Trauma, and Melancholy, 1790-1840* (Baltimore: Johns Hopkins UP, 2005). Hereafter *RM*. Richard C. Sha, *Perverse Romanticism: Aesthetics and Sexuality in Britain, 1750-1832* (Baltimore: Johns Hopkins UP, 2009). Hereafter *PR*.

⁴ Richardson, in the chapter on 'Romantic Incest: Literary Representation and the Biology of Mind', particularly examines this forbidden love from a scientific perspective. *NS*, 97-115.

⁵ *Poetics Today* collects a number of literary criticisms from a neuroscientific or cognitive perspective, particularly seen in Alan Richardson and Francis F. Steen, eds. Special Issue: 'Literature and the Cognitive Revolution', *Poetics Today* 23 (2002).

⁶ Timothy Clark expounds the significance of 'Shelley's science of mind' from a perspective of 'sensibility'. Recently, Mark Bruhm endeavours to explore Shelley's theory of mind from a cognitive perspective. Timothy Clark, *Embodying Revolution: The Figure of the Poet in Shelley* (Oxford: Clarendon, 1989). Hereafter *ER*. Mark J. Bruhn, 'Shelley's Theory of Mind: From Radical Empiricism to Cognitive Romanticism', *Poetics Today* 30.3 (2009): 373-422. For a further discussion of this issue, see James C. Hatch, 'Disruptive Affects: Shame, Disgust, and Sympathy in *Frankenstein*', *European Romanticism Review* 19.1 (2008): 33-49; Lisa Zunshine, *Strange Concepts and the Stories They Make Possible* (Baltimore: Johns Hopkins UP, 2008).

⁷ In this thesis, I will refer to the 1818 version of *Frankenstein*, edited by J. Paul Hunter. See Mary Shelley, *Mary Shelley Frankenstein: The 1818 Text, Contexts, Nineteenth-Century Responses, Modern Criticism*, ed. J. Paul Hunter (New York: Norton, 1996). Hereafter *Frankenstein*.

⁸ Percy Bysshe Shelley, 'On *Frankenstein*', *Frankenstein*, 185-86, 185. Hereafter 'OF'.

⁹ The authorship of the 1818 *Frankenstein* attracted the attention of early and recent critics. This issue was re-examined by some recent critics who credited this authorship to the Shelleys or even Shelley rather than Mary Shelley alone. Echoing James Rieger, E. B. Murray, and Anne K. Mellor, Charles Robinson edited *Frankenstein's* manuscripts at the Bodleian Library, Oxford University, and evidenced the Shelleys' collaboration in the *Frankenstein* Notebooks. Evidence from Phyllis Zimmerman and John Lauritsen, however, leads to Shelley as sole author of *Frankenstein*. In my thesis, this Shelleyan or Shelleys' collective philosophy of emotion in *Frankenstein* can be detected by being compared with Shelley's ideas of emotion in his other works. Due to those arguable findings, I hereafter refer to this novel as

co-written by the Shelleys. See Charles E. Robinson, *Mary Wollstonecraft Shelley, Volume IX, The Frankenstein Notebooks, Part One, Draft Notebook A* (New York; London: Garland, 1996) lxvi-lxxi. Hereafter *FN*. Phyllis Zimmerman, *Shelley's Fiction* (Los Angeles: Darami, 1998) 102-26. Hereafter *SF*. John Lauritsen, *The Man Who Wrote Frankenstein: Percy Bysshe Shelley* (Dorchester, MA: Pagan, 2007) 13-63. Hereafter *MWWF*. Charles E. Robinson, Introduction, *Frankenstein; or, The Modern Prometheus, the Original Two-Volume Novel of 1816-1817 from the Bodleian Library Manuscripts*, by Mary Wollstonecraft Shelley (with Percy Bysshe Shelley), ed. Charles E. Robinson (Oxford: Bodleian Library, 2008) 16-37.

¹⁰ Berthold Schoene-Harwood, ed. *Mary Shelley Frankenstein: A Reader's Guide to Essential Criticism* (Cambridge: Icon, 2000) 155. Hereafter *MSFRG*.

¹¹ After Richardson, Suzanne Nalbantian employs immediate knowledge of neuroscience to re-examine the issue of 'memory' in a wider range of literary works from Romanticism to Modernism. See Suzanne Nalbantian, *Memory in Literature: From Rousseau to Neuroscience* (Basingstoke: Palgrave-Macmillan, 2003).

¹² 'Nervous System, Human', *Encyclopædia Britannica. Encyclopædia Britannica Online*. Encyclopædia Britannica, 2010, Web, 18 Apr. 2010.

¹³ Working on neuroscience, Arnold H. Modell further explores the connection between imagination and matter. Arnold H. Modell, *Imagination and the Meaning of the Brain* (Cambridge, MA: MIT, 2003).

¹⁴ 'Emotion', def. 4b, *The Oxford English Dictionary*, Web, 25 June 2008. Hereafter *OED*.

¹⁵ 'Emotion', *OED*, Web, 25 June 2008.

¹⁶ 'Emotion', *The Merriam-Webster Dictionary*, Web, 3 July 2008.

¹⁷ 'Emotion', def. 2, *OED*, Web, 8 July 2008.

¹⁸ 'Emotion', def. 2, 3, *OED*, Web, 25 June 2008.

¹⁹ 'Emotion', def. 4a, *OED*, Web, 8 July 2008.

²⁰ 'Matter', def. 21, *OED*, Web, 3 July 2008.

²¹ 'Materiality', def. 2a, *OED*, Web, 3 July 2008.

²² 'Materiality', def. 2b, *OED*, Web, 3 July 2008.

²³ Charles Darwin, *The Expression of the Emotions in Man and Animals*, 1872 (Cambridge: Chadwyck-Healey, 1991) 3 vols. William James, *The Principles of Psychology*, vol. 2 (Cambridge, MA: Harvard UP, 1981). Hereafter *PP*.

²⁴ Partly refer to William James's definition of emotion. See William James, 'What Is an Emotion?' *Mind* 9 (1884): 188-205, 188-90.

²⁵ The concept of the 'eighteenth-century' in my discussion starts from 1650 and ends in 1821 when the Shelley circle's selected works were published. With the rise of the interdisciplinary studies between literature, history, philosophy, and science, the concept of the 'eighteenth-century' is no longer confined to a year numbering system, that is, traditionally from 1701 to 1800. The use of the term 'eighteenth century' and increasingly used 'long eighteenth century' varies from definition to definition. In 1997 Frank O'Gorman referred to the 'long eighteenth century' as the duration between 1688 and 1832. In recent years, this term has been commonly employed in the humanities. According to the Centre for Eighteenth Century Studies at York University, the long eighteenth century's duration ranges between 1650 and 1850. See Frank O'Gorman, *The Long Eighteenth Century: British Political and Social History, 1688-1832* (London; New York: Arnold, 1997). The Centre for Eighteenth Century Studies, York University, Web, 18 Apr. 2010.

²⁶ Richard van Oort, 'Cognitive Science and the Problem of Representation', *Poetics Today* 24.2 (2003): 238-95, 238.

²⁷ *NS*, 1-16, 1.

- ²⁸ Joseph Barrell, *Shelley and the Thought of His Time: A Study in the History of Ideas* (Hamden, CT: Archon, 1967). James Engell, *The Creative Imagination: Enlightenment to Romanticism* (Cambridge, MA: Harvard UP, 1981). Nancy Yousef, *Isolated Cases: The Anxieties of Autonomy in Enlightenment Philosophy and Romantic Literature* (Ithaca, NY: Cornell UP, 2004). Hereafter *IC*. Ana M. Acosta, *Reading Genesis in the Long Eighteenth Century: From Milton to Mary Shelley* (Aldershot; Burlington, VT: Ashgate, 2006) 159-82. Janelle A. Schwartz, 'Worm Work: Eighteenth-Century Natural History and Romantic Aesthetic Frontiers', diss. U of Wisconsin, 2008.
- ²⁹ *NS*, 3.
- ³⁰ Llewellyn M. Buell, 'Byron and Shelley', *Modern Language Notes* 32 (1917): 312-13.
- ³¹ See Reiman and Fraistat's preface to this poem. Percy Bysshe Shelley, *Shelley's Poetry and Prose: Authoritative Texts, Criticism*, ed. Donald H. Reiman and Neil Fraistat, 2nd ed. (New York; London: Norton, 2002) 92-93, 92. Hereafter *SPP*.
- ³² See Charles E. Robinson, *Shelley and Byron: The Snake and Eagle Wreathed in Fight* (Baltimore: Johns Hopkins UP, 1976). Hereafter *SB*.
- ³³ Percy Bysshe Shelley, *Zastrozzi: A Romance* (London: Hesperus, 2002) 67-68. Hereafter *Z*.
- ³⁴ As for a complete version of *Queen Mab*, see Percy Bysshe Shelley, *The Complete Poetry of Percy Bysshe Shelley*, ed. Donald H. Reiman and Neil Fraistat, vol. 2 (Baltimore: Johns Hopkins UP, 2004) 159-312. Hereafter *CPPBS*.
- ³⁵ *SB*, 53.
- ³⁶ Joseph Barrell discovered the connection between emotions and Shelley's poetry, but he did not touch on the 'matter' of emotions from a scientific perspective. See Joseph Barrell, *Shelley and the Thought of His Time: A Study in the History of Ideas* (New Haven: Yale UP, 1947) rpt. 1967, 162. Hereafter *STHT*.
- ³⁷ Most critics, for example Burton R. Pollin and Maurice Hindle, however, refer the author of the preface to Shelley. Mary Wollstonecraft Shelley, *Frankenstein; or, The Modern Prometheus*, ed. M. K. Joseph (Oxford: Oxford UP, 1969) rpt. 1998, 13.
- ³⁸ Shelley, Preface, *Frankenstein*, 5-6, 5. Hereafter 'FP'.
- ³⁹ *STHT*, 65-68.
- ⁴⁰ Mary Shelley, *The Journals of Mary Shelley: 1814-1844*, ed. Paula R. Feldman and Diana Scott-Kilvert (Oxford: Oxford UP, 1987) 675.
- ⁴¹ Laura Otis, 'Science of the Mind', *Literature and Science in the Nineteenth Century: An Anthology*, ed. Laura Otis (Oxford: Oxford UP, 2002) 325-31. Hereafter 'SoM'.
- ⁴² Mary Shelley perused this book in 1815 and reread it in 1820. For details of her readings of Godwin's work, see Paula R. Feldman and Diana Scott-Kilvert, ed., *The Journals of Mary Shelley 1814-1844: Volume II: 1822-1844* (Oxford: Clarendon, 1987) 649-50. Interestingly, Mary Shelley's *Frankenstein; or, The Modern Prometheus* seems to imitate the title of her father's sentimental novel *Fleetwood; or, The New Man of Feeling* (1805).
- ⁴³ Marilyn Butler, Introduction, *Frankenstein; or, The Modern Prometheus: The 1818 Text*, 1969 (Oxford; New York: Oxford UP, 1998) ix-li, xiv-xv. Hereafter 'BIF'.
- ⁴⁴ William Dean Brewer, *The Mental Anatomies of William Godwin and Mary Shelley* (Cranbury, NJ; London; Ontario: Associated UP, 2001) 16-18, 16.
- ⁴⁵ Pollin points out some key works, including 'a play on the Pygmalion theme by Mme de Genlis, Milton's *Paradise Lost*, Ovid's *Metamorphoses*, Locke's *Essay Concerning Human Understanding*, and miscellaneous writings by Condillac and Diderot'. Burton R. Pollin, 'Philosophical and Literary Sources of *Frankenstein*', *Comparative Literature* 17.2 (1965): 97-108, 98. Hereafter 'PLSF'.
- ⁴⁶ 'OF', 185.

⁴⁷ *F*, 187-201.

⁴⁸ Quoted in James Rieger, Introduction, *Frankenstein; or, The Modern Prometheus: The 1818 Text*, by Mary Shelley (Chicago; London: U of Chicago P, 1974) rpt. 1982, xi-xxxvii, xix.

⁴⁹ 'Shelley's' *Frankenstein* was later reviewed in Article 5 in the same volume in pages 379-85. See Rev. of *Foliage; or, Poems Original and Translated*, by Leigh Hunt, *The Quarterly Review* 18 (1818): 324-35, 327, Web.

⁵⁰ Quoted in Maurice Hindle, Introduction, *Frankenstein; or, The Modern Prometheus*, rev. ed. (New York: Penguin, 2003) xi-l, xii. Hereafter 'HFI'.

⁵¹ Considerable emotion-related terms employed in *Frankenstein* broadly include disgust, envy, horror, terror, fear, revenge, despair, agony, sadness, anguish, hatred, anger, madness, sympathy, joy, pleasure, passion, ecstasy, affection, love, and happiness.

⁵² Pinch has more investigations into the epistemology of emotion. See *SFP*.

⁵³ Joseph E. LeDoux, *The Emotional Brain: The Mysterious Underpinnings of Emotional Life* (London: Weidenfeld, 1998). Hereafter *EB*.

⁵⁴ Dylan Evans, *Emotion: The Science of Sentiment* (Oxford: Oxford UP, 2001), William Lyons, *Matters of the Mind* (Edinburgh: Edinburgh UP, 2001). William Lyons, *Matters of the Mind* (Edinburgh: Edinburgh UP, 2001). Susan A. Greenfield, *Journey to the Centers of the Mind: Toward a Science of Consciousness* (New York: Freeman, 1995).

⁵⁵ Ulrich Müller, Jeremy I. M. Carpendale, and Leslie Smith, Introduction, *The Cambridge Companion to Piaget*, ed. Ulrich Müller, Jeremy I. M. Carpendale, and Leslie Smith, Introduction (Cambridge: Cambridge UP, 2009) 1-44, 2.

⁵⁶ Percy Bysshe Shelley, 'On Life', *SPP*, 505-09, 506. Hereafter, 'OL'.

⁵⁷ Johanna M. Smith, ed. *Mary Shelley Frankenstein: Complete, Authoritative Text with Biographical, Historical, and Cultural Contexts, Critical History, and Essays from Contemporary Critical Perspectives*, 2nd ed. (Boston; New York: Bedford; St. Martin, 2000). Hereafter *MSFCAT*. Timothy Morton, *A Routledge Literary Sourcebook on Mary Shelley's Frankenstein* (London: Routledge, 2002). Hereafter *ARLS*.

⁵⁸ Harold Bloom, Afterword, *Frankenstein; or, The Modern Prometheus*, 1965 (New York: Signet, 1994) 212-23, 215.

⁵⁹ M. K. Joseph, Introduction, *Frankenstein; or, The Modern Prometheus*, by Mary Shelley (Oxford: Oxford UP, 1969) rpt. 1998, v-xiii, viii. Hereafter 'JIF'.

⁶⁰ Chris Baldick, *In Frankenstein's Shadow: Myth, Monstrosity, and Nineteenth-Century Writing* (Oxford: Clarendon, 1987).

⁶¹ Anne K. Mellor, rev. of *In Frankenstein's Shadow: Myth, Monstrosity, and Nineteenth-Century Writing*, by Chris Baldick, *Modern Philosophy* 87 (1998): 193-95, 193. Hereafter 'RIFS'.

⁶² Fred Botting, *Making Monstrous: Frankenstein, Criticism, Theory* (Manchester: Manchester UP, 1991). Hereafter *MM*.

⁶³ Ellen Moers, 'Female Gothic: The Monster's Mother', *Frankenstein*, 214-24. Sandra M. Gilbert and Susan Gubar, *The Madwoman in the Attic: The Woman Writer and the Nineteenth-Century Literary Imagination* (New Haven; London: Yale UP, 1984) 213-47. Barbara Johnson, 'My Monster/My Self', *Frankenstein*, 241-51. Anne K. Mellor, *Mary Shelley: Her Life, Her Fiction, Her Monsters* (New York: Routledge, 1988). Johanna M. Smith, 'A Critical History of *Frankenstein*', *MSFCAT*, 237-61. Gayatri Chakravorty Spivak, 'Three Women's Texts and a Critique of Imperialism', *Critical Inquiry* 12.1 (1985): 243-61. David Collings, 'The Monster and the Maternal Thing: Mary Shelley's Critique of Ideology', *MSFCAT*, 280-95.

⁶⁴ 'HFI', xi-l.

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- ⁶⁵ *MM*, 30.
- ⁶⁶ *ARLS*, 82-89.
- ⁶⁷ Sam N. Lehman-Wilzing, 'Frankenstein Unbound: Towards a Legal Definition of Artificial Intelligence', *Futures* 13.6 (1981): 442-57.
- ⁶⁸ Donna Haraway, 'A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century', *Contemporary Literature Criticism: Literary and Cultural Studies*, ed. Robert Con David and Ronald Schleifer (New York: Longman, 1994) 566-95. N. Katherine Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* (Chicago: U of Chicago P, 1999).
- ⁶⁹ Bernard E. Rollin, *The Frankenstein Syndrome: Ethical and Social Issues in the Genetic Engineering of Animals* (Cambridge: Cambridge UP, 1995). Hereafter *FS*. Jon Turney, *Frankenstein's Footsteps: Science, Genetics and Popular Culture* (New Haven: Yale UP, 1998).
- ⁷⁰ Samuel Holmes Vasbinder, *Scientific Attitudes in Mary Shelley's Frankenstein*, 2nd ed. (Michigan: UMI Research, 1984) 83. Hereafter *SAMSF*.
- ⁷¹ Concerning detailed sources, refer to online MLA archives 2000-2010, specific to *Frankenstein* and Science.
- ⁷² Current *Frankenstein* critics explore this novel from an 'emotional' perspective although the terms they employ vary. Critics whose interest is in science include Noel Chevalier (science, magic, and fantasy), Robyn Morris (intertextuality and racial differences), Sara Martin (Romanticism), Andrea Austin (cyborg and identity), Sharalyn Orbaugh (cyborg and postmodernist aesthetics), Carlos Seligo (hybridity and technology), Katerina Kitsi-Mitakou (biotechnology and medicine) and Debra Benita Shaw (science and women science fiction writers). Issues of culture, history, and literature appeal to critics, including Brian W. Aldiss and David Wingrove (modernity and the self), Boyd Petersen (cross-generational relations), Jürgen Barkhoff (God, technoscience, and German cultural traditions), and James Brown (social reform in Romanticism).
- ⁷³ Denise Gigante, 'Facing the Ugly: The Case of *Frankenstein*', *ELH* 67.2 (2000): 565-87.
- ⁷⁴ Quoted in Barbara Claire Freeman, 'Frankenstein with Kant: A Theory of Monstrosity or the Monstrosity of Theory', *Frankenstein: Contemporary Critical Essays*, ed. Fred Botting (New York: Palgrave, 1995) 191-205, 194-95.
- ⁷⁵ Scott J. Juengel, 'Face, Figure, Physiognomics: Mary Shelley's *Frankenstein* and the Moving Image', *Novel: A Forum on Fiction* 33.3 (2000): 353-76. Hereafter 'FFP'.
- ⁷⁶ 'FFP', 370.
- ⁷⁷ Yousef collects her earlier published journal articles (1998-2002) and draws on Enlightenment philosophy and Romanticism in this book. Her Chapter 5, 'Fantastic Form: *Frankenstein* and Philosophy' in *IC*, appeared originally as 'The Monster in the Dark Room: *Frankenstein*, Feminism, and Philosophy', *Modern Language Quarterly* 63.2 (2002): 197-226.
- ⁷⁸ Janis McLarren Caldwell, *Literature and Medicine in Nineteenth-Century Britain: From Mary Shelley to George Eliot* (Cambridge: Cambridge UP, 2004) 25-45.
- ⁷⁹ William S. Haney II, *Cyberculture, Cyborgs and Science Fiction: Consciousness and the Posthuman* (Amsterdam; New York: Rodopi, 2006) 78-91.
- ⁸⁰ See *AW*, 305-36.
- ⁸¹ For the details of this debate, see Guy Ortolano, *The Two Cultures Controversy: Science, Literature and Cultural Politics in Postwar Britain* (Cambridge: Cambridge UP, 2008).
- ⁸² C. P. Snow, *The Two Cultures*, 1955 (Cambridge: Cambridge UP, 1993).
- ⁸³ Thomas Kuhn, *The Structure of Scientific Revolutions* (Chicago: U of Chicago P, 1962).
- ⁸⁴ Timothy Morton, 'Contextual Overview', *ARLS*, 7-10, 8.

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- ⁸⁵ Aldous Huxley, *Literature and Science*, 1963 (Woodbridge, CT: Bow, 1991) 111.
- ⁸⁶ The British Society for Literature and Science, Web, 19 Apr. 2010.
- ⁸⁷ The Wellcome Trust, Web, 19 Apr. 2010.
- ⁸⁸ The Society for Social Studies of Science, Web, 19 Apr. 2010.
- ⁸⁹ The Society for Literature, Science, and the Arts, Web, 19 Apr. 2010.
- ⁹⁰ The International Society for Cultural History, Web, 19 Apr. 2010.
- ⁹¹ I regard this term ‘non-material’ as an outmoded one defined by dualism. In fact, this phrase still retains its materiality, for example, via linguistic metaphors.

CHAPTER TWO

The Science of the Mind: Percy Shelley's *Queen Mab* (1813)

Finding a later affinity with the Blue Fairy in Carlo Collodi's 1883 *Pinocchio*,¹

Shelley's *Queen Mab* is a fairy godmother character who has her origins in Celtic mythology and is mediated to us through Shakespeare's *Romeo and Juliet* (1597).² Shelley employs this fairytale character in his romance narrative³ to disseminate his ideas about education, science and the construction of the human mind. Subtitled 'A Philosophical Poem', *Queen Mab*⁴ is Shelley's first major poetic project to examine the mind in relation to materiality. In this poem, Shelley engages with ideas, concerning the mind derived from eighteenth-century philosophy of science, secular, and religious beliefs, through the framework of a fairytale or romance.⁵ My chapter focuses on how Shelley advocates 'scientific reason' to understand rationally the human mind and its diverse emotions in *Queen Mab*. In my discussion, Shelley's understanding of the mind is understood as prefiguring our current concerns in the field of cognitive science which centre on the relationship between feelings, physical nerve endings, and electronic impulses, as well between brain matter and the immateriality of thought and memory.

This scientific understanding of the mind is central to Alan Richardson's work on science and British Romanticism.⁶ Richardson's emphasis, however, rests more with eighteenth-century neural science and the works of Wordsworth, Coleridge, and Keats than

Shelley's science of the mind in *Queen Mab*. A number of other critics, including Joseph Barrell, Desmond King-Hele, and Ross Greig Woodman, have previously explored the scientific concerns and materialist issues in *Queen Mab*.⁷ Barrell notes that Shelley's *Queen Mab* draws on eighteenth-century thought with 'a strange mixture of humanitarianism and science, of intellectualism and emotionalism, of [Baron] D'Holbach and [Jean-Jacques] Rousseau' (*STHT*, 73). Unlike some earlier critics, King-Hele's approach to Shelley's poetry and *Queen Mab*, draws on atheism, vegetarianism, Newtonian science, William Godwin's political philosophy, and Robert Southey's early poetry about republicanism.⁸ By focusing on eighteenth-century philosophy, eclecticism, and apocalyptic ideas in Shelley's writings, Woodman – echoing C. E. Pulos's discussion of scepticism, immaterialism, and Platonism in Shelley's works⁹ – points out that Shelley's inheritance of John Newton's Orphism (adopted from ancient Greek mysticism) is a mixture of 'Godwin's immaterialism' and 'D'Holbach's materialism' (*AVPS*, 75). Recently, Christopher R. Miller has identified 'the binary nature of *Queen Mab* – the traditional and the radical, the real and the visionary, romance and revolution –' and even 'internal conflict and fruitful intersection' ('HEA', 70) within the poem. Shelley's use of a *fairytale* framework (or utopian vision) enables Miller to bridge the gap between heaven and earth, the immortal (Mab) and the mortal (Ianthe), and the ideal and the real in his critical account.¹⁰ My own reading, which sympathises with these accounts of Shelley's poetry, is sensitive to how the poem questions the boundaries between the material

and non-material. Such readings re-examine the relationship between Shelley's philosophy and scientific materialism to better understand how the mind was understood and constructed at the time.

Continuing his earlier atheistic statements in *Zastrozzi: A Romance* (1810) and *The Necessity of Atheism* (1811),¹¹ *Queen Mab* is widely acknowledged by critics¹² as conveying Shelley's revolutionary ideas in a bid to purify our 'contaminated' minds. Shelley is constantly fascinated by the workings of the mind throughout *Queen Mab*. In *Queen Mab*, the frequency of the reoccurrence of this term 'mind', used some fifty-six times throughout the poem and Notes, indicates Shelley's emphasis on mental processes. For Shelley, the mind exists as a weightless or invisible material object in the physical world similar to atmosphere, light, sound, electricity, and magnetism. Shelley employs scientific reasoning to undo the shackles of religion that bind even *intelligent* minds.¹³ Institutionalised forms of religion, for Shelley, prevent and restrict the reasoning capacity of the most intelligent human minds. More significantly, Shelley seeks to examine the so-called *immaterial* mind from a perspective of materiality. The mutual relationships between the brain and the mind are demonstrated in Shelley's works and this is suggestive of the materiality of the mind, the soul, the spirit, and thoughts. Ellis's *Concordance* to Shelley's work suggests that Shelley's usage of the word 'brain' mainly refers to the 'mind' and only in a very few instances does he use brain to refer to 'the soft mass enclosed in the skull' (LC, 69). In *Queen Mab*, Shelley

differentiates his atheistic views on the mind or the 'soul' from those of Platonic dualism, or even Cartesianism, which believed in the immortality of the soul or the mind. Such metaphysics is distinct from Shelley's scientific and atheistic 'metaphysics'.¹⁴ The mind, in Shelley's early materialist thinking, is inseparable from the body and such philosophical monism continues to persist to his later work. In his 'Speculations on Metaphysics' (1815), Shelley prefers atheistic empiricism to a metaphysical hypothesis about the human mind. Shelley disputes a metaphysical 'inquiry into the phenomena of mind' as 'it [metaphysics] is very ill adapted to express *the science of mind*' [emphasis added].¹⁵ Nevertheless, in *Queen Mab*, Shelley recognises that Christianity and other forms of superstition restrict human nature. This chapter concentrates on the physicality of Shelley's imagery to depict the fairy, the presence (or manifestation) of spirit, and how these images symbolise the invisible sphere of the mind.

I. A Legacy of Eighteenth-Century Reason

In *Queen Mab*, Shelley recognises that reason has been instrumental in liberating the individual mind and reforming society. The Romantics have been identified as disputers of the Age of Reason,¹⁶ but Shelley may prove the exception to this rule. He employs scientific reason to probe into the irrational principles of society's institutions which oppress human nature. For Shelley, these exist in the institutional forms of religion, government, and

monarchy. Shelley's materialist and anti-Christian stance is clearly demonstrated in the epigraphs that he chooses for *Queen Mab*. Shelley places the French radical philosopher Voltaire's epigraph, 'Ecrasez L'infame' (literally meaning 'Crush the demon') to underline his abhorrence of Christian dogma, monarchy, and superstitious customs.¹⁷ Extending Voltaire's concept, Shelley's 'demon' refers to religion, kingship, and government. In Canto IV of *Queen Mab*, Shelley repeatedly condemns kings, priests, and statesmen for their vices: 'Kings, priests, and statesmen, blast the human flower / Even in its tender bud; their influence darts / Like subtle poison through the bloodless veins / Of desolate society. ...' (*QM*, IV.104-07). Shelley's anti-establishment position is further reinforced by his use of a Latin epigraph derived from Archimedes (287-212 B.C.), which translates as: 'Only give me a place on which to stand, and I shall move the whole world' (*STP*, 200).¹⁸ This 'place on which to stand' suggests Shelley's desire to have a space to publish his controversial ideas. Like those Enlightenment scientists who advocated scientific reasoning to attain knowledge and happiness, Shelley re-affirms eighteenth-century reason as the basis of his atheistic materialism.

In their commentary on *Queen Mab*, Donald H. Reiman and Neill Fraistat place *Queen Mab* in the context of eighteenth-century science: 'That large role that science—from astronomy to biology to geology—plays in *QM* [*Queen Mab*] can be understood largely in terms of the revolutionary possibilities offered by scientific discourse of the eighteenth

century'.¹⁹ In fact, reason plays, and continues to play, a decisive role in scientific or epistemological advances. The term *reason* or *reasoning* is prevailingly used in the Enlightenment and understood as the means by which to achieve true knowledge and is frequently used in Shelley's works. In Note 13 (*QM*, VII.13) of *Queen Mab*, Shelley stresses the significance of reason for disputing superstition and theism:

Our reason can never admit the testimony of men, who not only declare that they were eye-witnesses of miracles, but that the Deity was irrational; for he commanded that he should be believed, he proposed the highest rewards for faith, eternal punishments for disbelief. (*CPPBS* Vol. 2, 266)

Shelley suggests that the belief in the Deity is beyond reason. Nowadays this reaction against a superstitious worldview is increasingly common with the advent of further scientific developments. Although some critics have related Shelley's philosophy to Christianity and Jesus's morality,²⁰ religious hypotheses are, for the young Shelley, dependent on miracles and self-evident testimonies and as such defy the nature of reason. Shelley's atheistic reasoning goes against those dominant Christian values of his time, but chimes more readily with our own current scientific age. Shelley's ideas anticipate the twentieth-century physicalism of Erich Harth, which is grounded not only in physical space (the outer world) but within the neural domain (the inner world).²¹

At the beginning of *Queen Mab*, the Fairy wakes Ianthe's spirit not with bodily

movement, but through mental activity, by swiftly flying her through physical space to a Spirit's 'fitting temple' (*QM*, I.277). In '[t]he magic car' (*QM*, I.207), Queen Mab takes the Spirit over 'the mountain's loftiest peak' (*QM*, I.216), through '[f]lashing incessant meteors' (*QM*, I.236), and finally to outer space to witness '[t]he smallest light that twinkles in the heaven;' (*QM*, I.251). This spatial journey reflects how Shelley's imagination prefigures more recent scientific theories about the workings of the mind or the neural system. In Canto II, the 'human brain' (*QM*, II.106) dominates all emotions and 'thought' (*QM*, II.107) and is seen as the only means of comprehending the physical world:

How wonderful! that even
The *passions, prejudices, interests*,
That sway the *meanest being*, the weak *touch*

That moves the *finest nerve*,

And in one human *brain*

Causes the *faintest thought*, becomes a *link*

In the great chain of *nature*. [Emphasis added] (*QM*, II.102-08)

This neural network relates human 'thought' (*QM*, II.107) or the mind to the physicality of nature. Shelley's lines echo George Berkeley's empiricist suggestion²² that '[the] perceiving, active being is what I call *mind, spirit, soul*, or *myself*'.²³ Similarly, Shelley is inclined to use inter-changeably the (working) brain for mind, soul, or spirit in *Queen Mab* and his other

poetic works.

That said, Shelley elsewhere takes issue with Berkeley's notion of 'immaterialism', as clearly demonstrated in his letter to Godwin on 29 July 1812:

I have read Berkeley, and the perusal of his arguments tended more than any thing to convince me that *immaterialism*, and other words of general usage deriving all their force from mere *predicates* (sic) in *non* (sic), were invented by the pride of philosophers to conceal their ignorance, even from themselves. ...
Reason (if I may be permitted to personify it) is as much as your superior, as you are mine. [Emphasis added] (*CWPBS* Vol. 9, *Letters*, 184, 11)

Disputing Berkeley's philosophical 'immaterialism', Shelley, in *Queen Mab*, recognises here that the 'nerve' (*QM*, II.105) or neuron dominates the mind of 'the meanest being' (*QM*, II.104). In other words, emotion is subject to the deprivation of one's reason. Shelley's account of the vibration of nerves is particularly influenced by English physiological-psychologist David Hartley (1705-1757). We know that Shelley received Hartley's *Observations on Man*, along with a few other important books, from his publisher Thomas Hookham on 29 July 1812:

I have received the parcel safe. I would thank you [Hookham] to send in addition "Miltons Prose Works," "Elements of Chemical Philosophy" by Sir H. Davy (to be published 1st of August), "Medical Extracts," "Hartley on Man," "Rights of

Woman,” by Mary Wollstonecraft (all in boards)’ (*CWPBS* Vol. 9, *Letters*, 183, 10).

Hartley’s theory of vibrations is then later employed in Shelley’s discussion of love. This mechanism of love is demonstrated in *Queen Mab* and persists in Shelley’s ‘On Love’:

... if we feel [love], we would that another’s nerves should vibrate to our own,
that the beams of their eyes should kindle at once and mix and melt into our own,
that lips of motionless ice should not reply to lips quivering and burning with the
heart’s best blood. (*SPP*, 503-04)

Vibrating ‘nerves’, beaming ‘eyes’, quivering ‘lips’, and burning ‘blood’ are all Shelley’s physiological vocabulary to capture the material nature of love. William Drummond’s *Academical Questions* (1805) provided Shelley with a short chapter (Chapter VI), which reflected on Hartley’s physico-metaphysics. Hartley, it is claimed by Drummond, observes that ‘... external objects, being impressed upon the senses, occasion vibratory motions of the medullary particles in the nerves and brain ...’.²⁴ It is evident that Shelley is influenced by this account of Hartley’s hypothesis and experiments with this idea and the imagery of vibrating particles in *Queen Mab*.

When ‘the meanest being’ (*QM*, II.104) is swayed by his or her ‘passions, prejudices, [and] interests’ (*QM*, II.103), Shelley suggests that an intelligent human mind governed by reason is able to discover the falsehood behind ‘fact’. This is the major reason that Shelley

designs an 'etherial palace' (*QM*, II.29) where Queen Mab instils a new worldview onto Ianthe's mind. This 'new' worldview, according to Shelley, however, adheres to the classical spirit, reviving those Greco-Roman traditions: '... The Spirit, / In extacy [ecstasy] of admiration, felt / All knowledge of the past revived; the events / Of old and wondrous times, / Which dim tradition interruptedly / Teaches the credulous vulgar, ...' (*QM*, II.244-49). The 'old and wondrous times' (*QM*, II.247) allude to pre-Christian or ancient Greco-Roman history that, for Shelley, forms the glory of human history and enlightens 'the credulous vulgar' (*QM*, II.249) believers in Christianity or monarchy. This monarchy also suggests that it is those anti-Christian Roman emperors who destroy the liberal spirit in ancient times.

In this context, *Queen Mab* conveys Shelley's political radicalism. In Canto III, the Fairy Queen, as a symbol of human nature, infuses reason into the Spirit, which represents a collective mind of political or religious dissidents. At the opening of this Canto, the Spirit appreciates the enlightenment given to her by Queen Mab: "'I thank thee. Thou hast given / A boon which I will not resign, and taught / A lesson not to be unlearned. ...' (*QM*, III.4-6). Shelley suggests that this 'lesson' (*QM*, III.6) taught by Queen Mab is about how to attain true knowledge through reason. The spirit of the Enlightenment aims to pursue knowledge through scientific reason, yet early religious and monarchical ideologies, as demonstrated in *Queen Mab*, undermine the spirit of reason and enslave the intelligent mind. If unable to know his or her own 'nature' (*QM*, III.100) or the importance of reason, the individual, as the

Fairy suggests, will continue being a slave ‘... who suffers from the crimes / Of this unnatural being...’ (*QM*, III.102-03). The ‘unnatural being’ (*QM*, III.103) refers to the king, George III (1738-1820), who was appointed through ‘divine’ right to govern the country. Ann Wroe notes Shelley’s early display against George III with his tutor Dr James Lind: ‘Teacher [Lind] and pupil [Shelley] cursed George III as they drank their tea together’.²⁵

Lacking the spirit of republicanism from the establishment of the Roman Empire, the king’s legitimacy in the Christian age, was endorsed by the church. Shelley’s democratic argument echoes the eighteenth-century contractarianism of Thomas Hobbes, John Locke, Immanuel Kant, and Jean-Jacques Rousseau. Rousseau’s *The Social Contract* (1762), which disputes the myth that kingship derives authority from God. Shelley’s political reasoning draws on Godwin’s anarchism. Shelley’s persistent emphasis on political anarchism is present in *Queen Mab*, as well as his ‘An Address, to the Irish People’ (1812), and his later work, ‘The Mask of Anarchy’ (1819). In spite of Godwin’s reputation as an anarchical philosopher, Shelley started his ‘alliance’ with Godwin by letter from 3 January 1812 and later revealed his own intention to free the Irish people from the regime of George III.²⁶ Against Godwin’s warning, Shelley headed for Ireland to advocate the significance of civil rights. Shelley’s declaration of rights to the Irish during his travels to Dublin, between 12 February and 4 April of 1812,²⁷ foreshadowed his political assertion in *Queen Mab*. After pointing to a series of vices instigated by monarchy, the Fairy advocates the necessity of

reason: ‘... And when reason’s voice, / Loud as the voice of nature, shall have waked / The nations; and mankind perceive that vice / Is discord, war, and misery...’ (*QM*, III.126-29).

The ‘reason’s voice’ (*QM*, III.126) relates to Shelley’s anti-Tory address to the Irish as well as the voice of Republicanism. Reason, therefore, provides Shelley with a lens through which to inspect the vices and illegitimacy of kingship.

In Canto VII, Shelley negates religious goodness in an attempt to use reason as a means to circumvent the evil forms of rationality manifested in religion, particularly Christianity. At the beginning of this Canto, the created evil in religion is sharply contrasted with the natural goodness of the Spirit. The infant Spirit has eye-witnessed an atheist’s tragic death by being ‘burned’ (*QM*, VII.2) under the demands of those alleged saints, described as ‘[t]he dark-robed priests’ (*QM*, VII.3). The legitimacy of this execution was simply the atheist’s testimony that ‘[t]here is no God!’ (*QM*, VII.13). This sympathy with an innocent atheist in *Queen Mab* also demonstrates Shelley’s own feelings. Paul Foot notes Shelley’s social activism through Shelley’s literary career. Foot claims that without ‘political ideas ... his [Shelley’s] poetry loses its magic, its music and its meaning’²⁸ and, more importantly, ‘[m]any of Shelley’s political ideas’ not only come from ‘books’ but ‘depend at least to some extent on experience and on people’ (*RS*, 203). Shelley’s humanistic defence for the atheist named Mr. D. I. Eaton explains Shelley’s social practice. Influenced by Thomas Paine, particularly his *The Rights of Man* (1791) and *The Age of Reason* (1794), Shelley invokes

Paine's concept of religious freedom throughout his letter to Lord Ellenborough. In his 'Letter to Lord Ellenborough', Shelley attempts to persuade Ellenborough to free Eaton instead of being a 'deistical Bigot' whose 'religion is ... bloody, barbarous, and intolerant'.²⁹

Shelley, in his Preface to *Alastor*, reassesses the risks of lacking sympathy:

They who, deluded by no generous error, instigated by no sacred thirst of doubtful knowledge, duped by no illustrious superstition, loving nothing on this earth, and cherishing no hopes beyond, yet keep aloof from sympathies with their kind, rejoicing neither in human joy nor mourning with human grief; these, and such as they, have their apportioned curse. (*SPP*, 73)

Alastor offers a revision of Shelley's earlier radical philosophy, but this atheistic reasoning central to *Queen Mab* remains a vital part of his thinking. *Queen Mab*, however, represents Shelley's adapting the practice of eighteenth-century scientific reason to re-examine superstition. The Fairy is Shelley's spokes-person in *Queen Mab*. 'There is no God' (*QM*, VII.13), the Fairy confirms to the Spirit, and this claim reaffirms Shelley's atheism. In Note 13 (*QM*, VII.13), Shelley attributes his atheism to Bacon's *Moral Essays*, D'Holbach's *Système de la Nature* (*The System of Nature*), Pliny's *Natural History*, Drummond's *Academical Questions*, and Spinoza's *Tractatus Theologico Politicus* (*Theological-Political Treatise*).³⁰ The Fairy's narrative becomes ironic and seeks to nominalise the essence of the deity. Strikingly, the Fairy points to the non-existence of God and highlights the universality

of the man-made God in different cultures:

The name of God

Has fenced about all crime with holiness,

Himself the creature of his worshippers,

Whose names and attributes and passions change,

Seeva, Buddh, Foh, Jehovah, God, or Lord,

Even with the human dupes who build his shrines,

Still serving o'er the war-polluted world

For desolation's watch-word.... (*QM*, VII.26-33)

Without offering redemption, God is simply a 'desolation's watch-word' (*QM*, VII.33). The

Fairy lists various religious terms for the divine – 'Seeva, Buddh, Foh, Jehovah, God, or

Lord' (*QM*, VII.31) – to establish the universality of this notion of a God and condemns those

who are religious as 'human dupes' (*QM*, VII.32). Undoubtedly, Shelley's atheistic

worldview in *Queen Mab* subverts a religious worldview. On the one hand, Shelley doubts

religious authorities and their worldview and, on the other, Shelley's discourse challenges

Christianity's claim to be the centre of human values. Shelley's sceptic and decentring

strategy echoes Spinoza's scepticism mentioned by Shelley in his Note 13 (*QM*, VII.13) to

Queen Mab.³¹

Shelley's atheism and conception of reason overturn Christian values and a religious

worldview. In Dante's Christian mythology, *The Divine Comedy*, with which Shelley was acquainted, humane pagans are allocated a place in the limbo of Purgatory and considered innocent sinners. By contrast, devout believers, in Shelley's deconstruction of Christianity, become the good-hearted but unintelligent followers – those 'human dupes' (*QM*, VII.32) – of religion. Shelley not only criticises the innocent believers, but condemns intellectuals who strengthen religious ideology and whose endorsement of the legitimacy of Christianity interferes with the development of scientific reason. In *Queen Mab*, the Fairy confirms to the Spirit that the 'peace-loving' God is impotent to govern the church, as its priests 'Mak[e] the earth a slaughter-house' (*QM*, VII.48):

... whilst Brahmins raise
A sacred hymn to mingle with the groans;
Or countless partners of his [God's] power divide
His tyranny to weakness; or the smoke
Of burning towns, the cries of female helplessness,
Unarmed old age, and youth, and infancy,
Horribly massacred, ascend to heaven
In honor of his name; or, last and worst,
Earth groans beneath religion's iron age,
And priests dare babble of a God of peace,

Even whilst their hands are red with guiltless blood,
Murdering the while, uprooting every germ
Of truth, exterminating, spoiling all,
Making the earth a slaughter-house! (*QM*, VII.35-48)

The Fairy shows compassion to those sufferers, including women, the elderly, the young, and infants inflicted by wars (*QM*, VII.38-41). This sympathy exhibited by an atheist is again contrasted with the lack of sympathy exhibited by Christianity. The Fairy's condemnation of Christianity stems from those hypocritical 'priests' (*QM*, VII.44) and intellectuals, namely 'Brahmins' (*QM*, VII.35). The priests, as the Fairy puts it, are the origin of vices and the obstacle to truth: '... their [priests'] hands are red with guiltless blood, / Murdering the while, uprooting every germ / Of truth, exterminating, spoiling all, / Making the earth a slaughter-house!' (*QM*, VII.45-48). The 'Brahmins' (*QM*, VII.35), for Shelley, reinforce superstition by supporting Christianity and dissolve the scientific spirit.

II. Cognitive Education: The Case of Ianthe

Anticipating Jean Piaget's account of children's cognitive development from 'genetic epistemology',³² Shelley employs Ianthe as a figure to symbolise vitality and the development of intelligence. Canto I of *Queen Mab* discloses Shelley's explanation of children's cognitive education. The Fairy symbolises the *spirit* of science and infuses an

irreligious worldview into the pure mind of Ianthe. In *Queen Mab*, Ianthe is described as a ‘slumbering maid’ (*QM*, I.67), whose *frozen* mind is as pure as a newborn. This chimes with Shelley’s original hope to disseminate his revolutionary ideas to aristocratic children, as he writes: ‘[This book aims] to catch the aristocrats. They will not read it, but their sons and daughters may’ (*Letters*, 7, 42).³³ In this context, Ianthe’s newborn mind becomes a vital metaphor for Shelley’s empiricist ideas and notion of cognitive development, as in the following description:

Soul of Ianthe! thou,

Judged alone worthy of the envied boon,

That waits the good and the sincere; that waits

Those who have struggled, and with resolute will

Vanquished earth’s pride and meanness, burst the chains,

The icy chains of custom, and have shone

The day-stars of their age;—Soul of Ianthe!

Awake! arise!

Sudden arose

Ianthe’s Soul; it stood

All beautiful in *naked purity*,

The perfect semblance of its bodily frame,

Instinct with inexpressible beauty and grace;

Each stain of earthliness

Had passed away, it reassumed

Its native dignity, and stood

Immortal amid ruin. [Emphasis added] (*QM*, I.122-38)

The Fairy addresses the sleeping soul of Ianthe and expects her to use her gifted intelligence or reason to judge independently and defeat social vices as well as old-fashioned ‘custom’ (*QM*, I.127). This ‘custom’ refers to any kind of dogma that binds the thinking mind. The scene, when the Fairy implores the ‘Soul of Ianthe’ (*QM*, I.128) to ‘Awake! arise’ (*QM*, I.129), dramatises Shelley’s revolutionary desire to break the mind free from ‘[t]he icy chains of custom’ (*QM*, I.127) and return to ‘[i]ts native dignity’ (*QM*, I.137). Shelley’s hatred for customs is emphasised in a poem, entitled ‘Passion’, from his Esdaile Notebook, where he comments on the interference of custom with the mind: ‘... Custom’s chains / Have bound thee [Passion] from thine Heaven-directed flight’ (46-47).³⁴ The concept of ‘flight’ symbolises the lightness and liberation of the mind to happiness in ‘Heaven’ and Shelley later employs this concept in *Queen Mab*. The Fairy drives a magic car, taking Ianthe to Heaven: ‘Saw but the fairy pageant, / Heard but the heavenly strains / That filled the lonely dwelling’ (*QM*, I.91-93). This desire for happiness is essentially identical to a religious or mythological

imagination of Heaven. Although Shelley later recognises emotional aspects of religion in *Queen Mab*, he pursues, within the poem, an earthly paradise that is constructed by scientific understanding and not realised through spiritual or religious salvation.

In Shelley's philosophy, a child's education determines the future of society. Shelley's concern about children's cognition is demonstrated in a striking domestic argument between Shelley and Harriet Shelley about 'hiring a wet nurse'. Barbara Gelpi observes that Harriet 'refused to nurse the baby [this couple's first child, Ianthe] herself and insisted on hiring a wet nurse'³⁵ even though Shelley was concerned that 'the nurse's soul would enter the child' (qtd. in *SG* 3). Despite the fact that Shelley is misled by the conception of the contemporary 'science' of nursing,³⁶ this episode highlights Shelley's concern with infants' cognitive development. Shelley seeks to provide a 'pollution-free' place for children's education. This concept is embedded in Canto I of *Queen Mab*. Unlike the physical deformity of Frankenstein's monster,³⁷ Ianthe expresses the naturally good in the body and the mind: 'The perfect semblance of its bodily frame, / Instinct with inexpressible beauty and grace;' (*QM*, I.133-34). In his portrayal of the 'naked purity' (*QM*, I.132) of Ianthe's soul, Shelley draws on a Lockean concept of *tabula rasa* as well as Rousseau's concept of 'natural man'. Drawing on his arguments from *The Necessity of Atheism*, Shelley in *Queen Mab* re-affirms the necessity of sense experience to the development of the mind: 'The senses are the sources of all knowledge to the mind; consequently their evidence claims the strongest assent'

(*CPPBS* Vol. 2, *QM*, VII.13, Note 13, 264). The development of the mind is of great interest to early empiricists and remains so to current cognitive psychologists. Ianthe's mind reflects an empiricist model in which the cognition of the world is accumulated through sense experience. Ianthe's cognitive process is indebted to Shelley's familiarity with classic characters, such as Pygmalion's female statue, Rousseau's Emile, and Condallic's walking statue. More significantly, this empiricist view of the character of Ianthe demonstrates Shelley's anticipation of cognitive science, particularly extended to the development of artificial man's intelligence or *self*.

In this speculative field, the boundaries between science fact and science fiction often unnervingly blur. Mary Shelley, for example, imaginatively speculates about the cognitive development of an assembled and reanimated creature by drawing on the scientific context of galvanism. Spielberg's and Kubrick's *Artificial Intelligence*, as well as Brian Aldiss's science fiction, take inspiration from Mary Shelley's *Frankenstein* and *The Last Man* to infuse robotic technologies with human sensibilities.³⁸ The Fairy's role in Shelley's *Queen Mab* is to cleanse Ianthe's contaminated mind – anticipating later science fiction scenarios and scientific notions of wiping clean the memory chips or banks of a robot – and provide her with a fresh start for cognitive development.

For Shelley, the materiality of life has its affinity with human cognition. In addition to *Queen Mab* and his earlier works, Shelley pursues these interests in life and cognition in his

other works. Shelley's 'On Life' (1819), for example, confirms his enthusiasm for the exploration of the relationship between life and thought in the context of materialist empiricism. In this essay, Shelley reaffirms his anti-metaphysics: 'I confess that I am one of those who am (sic) unable to refuse my assent to the conclusions of those philosophers, who assert that nothing exists but as it is perceived' (*SPP*, 506).³⁹ Unlike Pulos's and Cian Duffy's metaphysical interpretation of Shelley's philosophy,⁴⁰ Shelley was, effectively, a materialist who employs scepticism to revise his own brand of materialism. In Note 13 (*QM*, VII.13) of *Queen Mab*, Shelley mentions the influence of Drummond's *Academical Questions* on his atheism (*CPPBS* Vol. 2, 277). Reiman and Fraistat even point out that 'Peacock may have introduced him [Shelley]' to *Academical Questions* 'perhaps in the spring or summer of 1813' (*CPPBS* Vol. 2, 383). In fact, as stated in his letter to Hookham on 26 January 1813, Shelley had earlier learned of Drummond's philosophy and felt detached from its apparently deistic philosophy or metaphysics: 'I do not think that Sir W. Drummonds (sic) arguments have much weight. His *Ædipus* has completely failed in making me a convert' (*CWPBS* Vol. 9, *Letters*, 201, 42). Earlier, then, than a focus on vitality or the very element of life in *Alastor* and *Frankenstein*, Shelley's interest in vitality is stated in the opening of *Queen Mab*. For the Narrator in *Queen Mab*, life and death are equally 'wonderful' (*QM*, I.8) and the difference between 'Death and his brother Sleep' (*QM*, I.2) is just in shade alone: the former is 'blue' (*QM*, I.4) and the latter 'rosy' (*QM*, I.5). These two opposite colours demonstrate Shelley's

physiological understanding of vitality symbolised through both the active life-giving 'rosy' blood and its deathly pale 'blue' counterpart.

Ianthe is caught in a state between life and death until 'the gloomy Power' (*QM*, I.9) or vitality that remains in her body re-animates her. The origin of life perplexes the Narrator, and Shelley's poem blurs the boundaries between life and death: 'That lovely outline, which is fair / As breathing marble, perish? / Must putrefaction's breath / Leave nothing of this heavenly sight / But loathsomeness and ruin?' (*QM*, I.16-20). Different from Frankenstein's monster at a physical level, the 'breathing marble' (*QM*, I.17) and 'putrefaction's breath' (*QM*, I.18), in *Queen Mab*, represents Ianthe's fair body trapped in a limbo between life and death and through which Shelley meditates on the affinity between vitality and empiricism. This empiricist notion becomes clearer when the Narrator, in *Queen Mab*, wonders whether sensation still exists in the static Ianthe:

Or is it only a sweet slumber

Stealing o'er sensation,

Which the breath of roseate morning

Chaseth into darkness?

Will Ianthe wake again,

And give that faithful bosom joy

Whose sleepless spirit waits to catch

Light, life and rapture from her smile? (*QM*, I.23-30)

The Narrator gazes upon the motionless Ianthe with an empiricist eye: 'Or is it only a sweet slumber / Stealing o'er sensation' (*QM*, I.23-24). This ability to receive sensations, the Narrator suggests through these detectable signs of emotion, for example a 'smile' (*QM*, I.30), which the 'sleepless spirit waits to catch' (*QM*, I.29), can prove the existence of a sound mind and body. After Ianthe's 'awakening' from a deep sleep, though without real physical movements, the Fairy takes the soul of Ianthe to experience a new world. This flight of the Fairy and the Spirit, which partly echoes Ovid's 'Helios and Phaethon' in design,⁴¹ is a Shelleyan portrayal of the connection between the outer world and the inner world. 'Light, life and rapture' (*QM*, I.30) allude to the origin of life and the operations of the mind. 'Light' (*QM*, I.30), like electricity or essence of vitality, animates the organism and 'life' (*QM*, I.30) or *vitality* sparks the activity of the mind. Emotion, like 'rapture' (*QM*, I.30), explains the workings of the mind. The imagery of 'light' (*QM*, I.62) which relates to a force for life recurs when 'the Fairy Queen' (*QM*, I.59) launches the chariot: 'Their [the coursers'] filmy pennons at her word they furl, / And stop obedient to the reins of light: / These the Queen of spells drew in, / She spread a charm around the spot,' (*QM*, I.61-64). The Fairy's magic explains the mysterious vitality that activates the operations of the 'chariot' (*QM*, I.59) – a physical body. This world in the journey of the Fairy and the Spirit is very different from the world that Shelley criticises. The detached outer space, where they eventually land, reflects

an ideal world. In Shelley's materialist concept, this imaginary world does, indeed, exist somewhere between the neural networks of the 'brain' (*QM*, I.69): 'Oh! not the visioned poet in his dreams, / When silvery clouds float through the 'wilder'd brain, / When every sight of lovely, wild and grand / Astonishes, enraptures, elevates,' (*QM*, I.68-71). Shelley suggests that the power of animation is not derived from poetical imagination, but grounded in alchemical science:

When fancy at a glance combines
The wondrous and the beautiful,—
So bright, so fair, so wild a shape
Hath ever yet beheld,
As that which reined the coursers of the air,
And poured the magic of her gaze
Upon the maiden's sleep. (*QM*, I.72-78)

The Fairy's 'glance' (*QM*, I.72) or 'gaze' (*QM*, I.77) alludes to the vital substance which brings the vegetated *Ianthe* to life. This 'magic' (*QM*, I.77) or supernatural power presumably relates to the application of electric impulses as the basis for life in current medical practice. Shelley's mediation on, and fascination with, alchemy, a kind of medical or chemical magic, is illustrated in this scene of animation. Although alchemists failed to seek the ultimate power of alchemy that leads to juvenescence, beauty, and longevity, Shelley fulfils this ambition

through his poetical fairytale. This fancy relates to the magic of the Fairy given to the sleeping Ianthe: ‘The wondrous and the beautiful,— / So bright, so fair, so wild a shape’ (*QM*, I.73-74). The Fairy ‘gaze / Upon the maiden’s sleep’ (*QM*, I. 77-78) hints at the reanimation science of Frankenstein. The materiality of the Fairy’s gaze foreshadows the use of galvanism in *Frankenstein*’s second authorised edition (1831). The rebirth of Ianthe explains Shelley’s ‘alchemical’ interest or desire for life science which continues to appear in *Alastor* and *Frankenstein*.⁴²

III. Shelley’s Sceptical Mind: The Case of Ahasuerus

The episode of Ahasuerus or the Wandering Jew in Canto VII of *Queen Mab* is a powerful case in point for the necessity of the science of mind. In *Queen Mab*, Ahasuerus is an outcast Jew whose image Shelley employs to express sceptical ideas. Ahasuerus symbolises the spirit of scepticism and Shelley uses this character as a spokesman to examine Christian history and advocate the necessity of the freedom of mind. Shelley’s scepticism is inevitably influenced by Drummond’s *Academical Questions*. Pulos points out that *Academical Questions* nurtured the young Shelley’s scepticism: ‘Prior to the publication of *Queen Mab* (1813) Shelley’s knowledge of philosophical scepticism was confined to some of Hume’s *Essays* and Drummond’s *Academical Questions*’ (*DT*, 37). Drummond criticises the abuse of materialist philosophy by the ‘professed adherents’ (*AQ*, xiv) and employs his

‘scepticism’ (*AQ*, xiv) to refine his own thinking about the ‘philosophy of mind’ (*AQ*, v). In his ‘On Life’, Shelley demonstrates that Drummond’s sceptical philosophy leads him to reassess his previous conviction of materialism. Scepticism, for Shelley, is a means to rethinking every moral system that existed in his own time. *Academical Questions* provided Shelley with diverse perspectives on scepticism and the philosophy of the mind, including classical scepticism (Cicero), British empiricism (Locke, Berkeley, Hume), and philosophies of mind (Spinoza, D’Holbach, Thomas Reid, Kant, Hartley).

Some of these sceptical ideas are revealed in Shelley’s letters to Hitchener, Thomas Jefferson Hogg (his friend at Oxford), Timothy Shelley (his dominant father), and Godwin, in particular between 1810 and 1812. These correspondences can be seen as a blueprint of Shelley’s *Queen Mab*. In his letter to Hitchener on 15[?] October 1811, Shelley claims that ‘Religion’ is ‘immoral’ and full of the ‘gigantic piles of superstition’ (*CWPBS* Vol. 8, *Letters*, 103, 159). Shelley’s letter to his father, dated 6 February 1810 [1811] during his study at Oxford, affirms his understanding of the radical philosophies of some seminal religious thinkers of the day and Shelley’s sceptical question of their worth: ‘Locke’s Christianity cannot *now* appear so surprising, particularly if we mention Voltaire, Lord Kames, Mr. Hume, Rousseau, Dr. Adam Smith, Dr. Franklin et *mille alios*, all of whom were Deists, the life of all of whom was characterised by the strictest morality ...’ (*CWPBS* Vol. 8, *Letters*, 34, 51). In his letter to Hitchener on 2 January 1812, Shelley reveals his commitment to ‘scepticism’

and challenges Southey's belief in Christian Trinity (*CWPBS* Vol. 8, *Letters*, 142, 227).⁴³

This acquaintance with eighteenth-century radical philosophy helps the young Shelley develop his own sceptical position.

The case of Ahasuerus is for Shelley a sceptical exercise in the discourse of materialist atheism. This materialist atheism informed by D'Holbach attracts the young Shelley.

Regarded as 'the Bible of all Materialism',⁴⁴ D'Holbach's *The System of Nature* (1770) steers Shelley towards materialist scepticism.⁴⁵ Prior to *Queen Mab*, Shelley's scepticism against Christianity and other religions is expressed in his correspondences with his father:

"Religion fetters a reasoning mind with the very bonds which restrain the unthinking one from mischief." [Shelley's previous comments on religion] This is my great objection to it [religion]' (*CWPBS* Vol. 8, *Letters*, 34, 52).⁴⁶ The image of the sceptical Jew reflects

Shelley's continual desire to liberate and exercise the mind. Reworking his own early writings, Shelley gives the spirit of Ahasuerus 'a place on which to stand'⁴⁷ and attempts to subvert a Christian worldview. Ahasuerus's spirit is viewed as a kind of material substance that is the product of the interactions between the individual's mind (or neurons) and written words. These written words, 'printed' from the brain, record the working of the mind in the vanished 'mind' and decayed brain. Shelley reifies this spirit, in Ahasuerus's case, as a '... phantasmal portraiture / Of wandering human thought' (*QM*, VII.274-75). This outcast figure also appears in Shelley's early poems, 'The Wandering Jew's Soliloquy' and *The*

Wandering Jew; or, The Victim of the Eternal Avenger (1811). The image of God, according to this sceptical Jew, is a merciless tyrant. In 'The Wandering Jew's Soliloquy', this negative image of God is first expressed: 'Tyrant of Earth [God]! pale Misery's jackall (sic) thou! / Are there no stores of vengeful violent fate / Within the magazines of thy fierce hate?' (11-13).⁴⁸ The image of this avenging God emerges in *The Wandering Jew*. Employing scientific reason to understand this 'history' or Christian folklore, Shelley articulates a materialist concept to demonstrate the Jew's sufferings: "'Twas then I fell on the ensanguined earth, / And cursed the mother who gave me birth! / My maddened brain could bear no more—' (*The Wandering Jew*, 849-51).⁴⁹ By inference, Ahasuerus's punishment is meted out by Christian 'mobs' instead of God. God's 'curse' on Ahasuerus of eternal wanderings on Earth is simply Christian cruelty in the guise of Christian 'justice'. Like some mild religious dissidents, Ahasuerus is a victim who is physically assaulted and exiled until his death. In his Preface to *The Wandering Jew*, Shelley points to his demythologising perspective and regards the role of this wandering Jew simply as 'an imaginary personage' instead of 'the reality of his existence'.⁵⁰ Shelley employs the concept of materiality to re-examine the consequences of being an anti-Christian dissident in a Christian world. The 'brain' (*WJ*, 851), in Shelley's materialist understanding, is the only receptor of sufferings and becomes a corporeal hell.

This image of the Wandering Jew, for Shelley, relates to John Milton's scepticism about religious ideology. Satan in Milton's *Paradise Lost* (1668) is, for Shelley, another

Ahasuerus. Milton's material 'hell' is stated in the epigraph of *The Wandering Jew*: 'Which way I fly is hell—myself am hell' (*TWJ*, 1). Due to his denial of Christian values, Satan, as a symbol of every religious dissident, may also endure 'hellish' physical tortures. In *Queen Mab*, the ghost of Ahasuerus exemplifies Shelley's materialist scepticism.

The return of Ahasuerus's ghost goes some way to explain Shelley's sceptical critique of Christianity. Unsatisfied with this Christianity-centred society, Shelley endeavours to defend this demonised sceptic (Ahasuerus) and, more importantly, to revive a sceptical philosophy that was overshadowed by a Christianity-based society. Whilst the Spirit symbolises an individual mind, Ahasuerus relates to a sceptic or dissident in ancient times who questions Christianity. In Canto VII, the encounter between Ahasuerus's ghost and the Spirit of Ianthe reflects the ethos of the Enlightenment in which people are encouraged to use reason to attain absolute 'truth' through sceptical questioning. After Shelley's attack on monarchy, in Canto III, the appearance of Ahasuerus – invoked by the Fairy (*QM*, VII.67) – instigates Shelley's attempt to approximate 'truth' via the articulation of the figure of Ahasuerus set against Christ (*QM*, VII.84-275). Despite the interrogations of the concept of 'truth' or 'reality', as Jean Baudrillard raises,⁵¹ a comparatively convincing 'truth' is continually refined. Shelley's notion of reconstructing 'truth' is present in his 'On Life', where Shelley employs scepticism and empiricism to reassess epistemology: 'What follows from the admission? It establishes no new truth, it gives us no additional insight into our

hidden nature, neither its action, nor itself' ('OL', 507). He suggests that the intellectual systems should strive to develop a 'new truth' ('OL', 507). This 'new truth' relates to a sceptical idea. This reconstructive strategy is also significant for the operations of the mind in *Queen Mab*. In *Queen Mab*, Shelley gives three stages of the processions of human cognition towards nature. At this second stage, of the present, Shelley seeks to subvert the stigma of atheism. Ahasuerus, in this Christian discourse, becomes a victim of the 'original sin' of atheism. In Shelley's Note 14 (*QM*, VII.67) to *Queen Mab*, Ahasuerus is condemned by 'an angel of death' as a 'Barbarian' who 'denied rest to the Son of Man [Jesus]' when Jesus Christ 'was wearied with the burthen of his ponderous cross, and wanted to rest before the door of Ahasuerus' (*CPPBS*, 278). Ahasuerus is eventually punished by walking the earth until Jesus 'comes to judge the world' at the Last Judgement (*CPPBS*, 278). Shelley's interpretation of this episode is different from a traditional Christian point of view. Ahasuerus is physically tortured by Christians instead of being 'cursed' by God and wandering the earth alone until the Last Judgement. Ahasuerus is a striking example through which Shelley attempts to expound the vices of those revengeful Christians: 'When I [Ahasuerus] awoke hell burned within my brain, / Which staggered on its seat; for all around / The mouldering relics of my kindred lay, / Even as the Almighty's ire arrested them, / And in their various attitudes of death / My murdered children's mute and eyeless skulls / Glared ghastly (sic) upon me' (*QM*, VII.186-92). This suggests that Ahasuerus endures physical tortures inflicted

by Jesus's followers and this physical pain is like 'hell burn[ing] within [his] brain' (*QM*, VII.186). The 'brain' (VII.186), in Shelley's materialist understanding, is the 'seat' (*QM*, VII.187) of our sense of existence and feelings. In addition, other atheists or religious dissidents are murdered, along with Ahasuerus's innocent children (*QM*, VII.188-92).

Ahasuerus responds to the Spirit's question – 'Is there a God?' (*QM*, VII.83) – by means of a negating philosophy: 'Is there a God!—aye, an almighty God, / And vengeful as almighty! ...' (*QM*, VII.84-85). This ironic answer demonstrates Shelley's intention to overturn Christian values. That is, God is not at all sympathetic, but only 'vengeful' (*QM*, VII.85). This negation of God is evident earlier in the subtitle of Shelley's *The Wandering Jew* which refers to God as 'the Eternal Avenger'. Shelley's disgust at the Christian God is clearly expressed in Ahasuerus's address: '... Once his [God's] voice / Was heard on earth: earth shuddered at the sound; / The fiery-visaged firmament expressed / Abhorrence, and the grave of nature yawned / To swallow all the dauntless and the good / That dared to hurl defiance at his throne, / Girt as it was with power. ...' (*QM*, VII.85-91). Shelley continually negates the mercy of the Christian God and reveals God's tyranny to weed out naturally good dissidents: 'To swallow all the dauntless and the good / That dared to hurl defiance at his [God's] throne,' (*QM*, VII.89-90). As a result, the 'almighty God' (*QM*, VII.84), in Shelley's interpretation, is simply an 'omnipotent fiend' (*QM*, VII.97) and 'insensate mob' (*QM*, VII.239) '[o]f tyrannous omnipotence' (*QM*, VII.93) and God's 'justice' (*QM*, VII.126) is

essentially only 'blind revenge' (*QM*, VII.125).

Advocating scientific reasoning and scepticism, Shelley persists in refuting the Christian belief through his depiction of Ahasuerus's ghost. Ahasuerus's address conveys Shelley's abhorrence of those legitimated prophets who deceive unintelligent followers. The arch prophet, Moses, according to Shelley, is a 'murderer' (*QM*, VII.100), an '[a]ccomplice of omnipotence in crime, / And confidant of the all-knowing one [God]' (*QM*, VII.103-04), but exerts his religious influence to destroy human *nature* that desires freedom of thought:

... None but slaves

Survived,—cold-blooded slaves, who did the work

Of tyrannous omnipotence; whose souls

No honest indignation ever urged

To elevated daring, to one deed

Which gross and sensual self did not pollute.

These slaves built temples for the omnipotent fiend [God],

Gorgeous and vast: the costly altars smoked

With human blood, and hideous pæans rung

Through all the long-drawn aisles. A murderer heard

His voice in Egypt, one whose gifts and arts

Had raised him to his eminence in power,

Accomplice of omnipotence in crime,

And confidant of the all-knowing one [God]. (*QM*, VII.91-104)

Shelley's humanistic spirit discloses the potential values of religious followers. Shelley considers these followers as unwise or naturally evil as 'cold-blooded slaves' (*QM*, VII.92), who help to remove the religious Other (namely, those who defy Christianity) in order to establish a Christian kingdom: '... None but slaves / Survived,—cold-blooded slaves, who did the work / Of tyrannous omnipotence; whose souls / No honest indignation ever urged / To elevated daring, ...' (*QM*, VII.91-95). In the end, Shelley overturns the image of Moses, rendering him not as a virtuous prophet, but as a murderer who fears God's punishment (or the pangs of Moses's own conscience) and, finally, obeys 'the omnipotent fiend' (*QM*, VII.97) and enslaves the human mind: 'Even the murderer's [Moses's] cheek / Was blanched with horror, and his quivering lips / Scarce faintly uttered—"O almighty one [Jehovah], / I tremble and obey!"' (*QM*, VII.158-60).

This scenario of Ahasuerus's anti-Christianity, in Canto VII, does not end until Ahasuerus's ghost unveils Jesus's *vice* to the Spirit (*QM*, VII.161-266). Shelley uses Ahasuerus's figure to rethink those Christian self-centred values. Shelley's concept of materialist empiricism suggests that thought processes within the brain, which are constructed through sense experience, have the ability to affect our judgement and action. Unfortunately, Jesus's Christian ideology, according to Ahasuerus, has dominated this thinking 'brain' (*QM*,

VII.162) for ‘centuries’ (*QM*, VII.161): ‘O Spirit! centuries have set their seal / On this heart of many wounds, and loaded brain, / Since the Incarnate [Jesus] came: ...’ (*QM*, VII.161-63).

Ahasuerus offers an alternative perspective from which to re-examine Jesus’s origin:

... humbly he [Jesus] came,

Veiling his horrible Godhead in the shape

Of man, scorned by the world, his name unheard,

Save by the rabble of his native town,

Even as a parish demagogue. He led

The crowd; he taught them justice, truth, and peace,

In semblance; but he lit within their souls

The quenchless flames of zeal, and blest the sword

He brought on earth to satiate with the blood

Of truth and freedom his malignant soul.

At length his mortal frame was led to death. (*QM*, VII.163-73)

In this anti-Christian view, Jesus is ‘... in the shape / Of man ...’ (*QM*, VII.164-65) with God’s vice — ‘horrible Godhead’ (*QM*, VII.164) — and incites ‘the rabble of his native town’ (*QM*, VII.166) to rebellion under the disguise of ‘justice, truth, and peace’ (*QM*, VII.168). Different from an image of love and mercy in Christianity, Jesus, in Ahasuerus’s eyes, becomes a ‘mortal’ (*QM*, VII.173) advocate of the devil. In addition to Jesus’s

incitement to riot and trickery in religion, Ahasuerus also points to the main reasons for Jesus's prosecution: 'The massacres and miseries which his name / Had sanctioned in my country ...' (*QM*, VII.177-78). The wrong-doer, in Ahasuerus's view, is Jesus as '... he [Jesus] lit within their [Jesus's country mobs'] souls / The quenchless flames of zeal, and blest the sword / He brought on earth to satiate with the blood / Of truth and freedom his malignant soul' (*QM*, VII.169-72). Jesus here is regarded as the leader of mobs and a 'malignant soul' (*QM*, VII.172), who only accepts a narrowly defined 'truth and freedom' (*QM*, VII.172). Compared with the freedom afforded by atheism, Jesus's crime, according to Ahasuerus, does not warrant his sympathy. Consequently, Ahasuerus rejects the fatigued Jesus 'on the torturing cross' (*QM*, VII.174) and prior to that refuses him rest at Ahasuerus's house: '... I [Ahasuerus] cried, / "Go! go!" in mockery' (*QM*, VII.178-79).

The young Shelley employs Ahasuerus's statement to disclose the dark history of Christianity in order to liberate the imprisoned thinking mind. Scepticism is Shelley's weapon to attack Christian doctrinal authority. Shelley attempts to re-examine the essence of Christianity and the image of Jesus Christ. Ahasuerus embodies Shelley's critique of Christianity and his rejection of authorities of 'thought': 'But my soul, / From sight and sense of the polluting woe / Of tyranny, had long learned to prefer / Hell's freedom to the servitude of heaven' (*QM*, VII.193-95). 'Hell' (*QM*, VII.195), for Ahasuerus, refers to his bodily sufferings. Nevertheless, Ahasuerus's rejection of Jesus's authority and the existence of God

demonstrates a reasoning mind capable of denying superstition because, as Ahasuerus notes, the Christian ‘heaven’ (*QM*, VII.195) is a ‘servitude’ (*QM*, VII.195) of the human mind. The hypocrisy of Christians and their treatment of Ahasuerus and other atheists are predicted by Ahasuerus’s claim:

These have I seen, even from the earliest dawn
Of weak, unstable and precarious power,
Then preaching peace, as now they practice war;
So, when they [Christians] turned but from the massacre
Of unoffending infidels, to quench
Their thirst for ruin in the very blood
That flowed in their own veins, and pityless (sic) zeal
Froze every human feeling, (*QM*, VII.205-12)

Ahasuerus emphasises that the ‘war’ (*QM*, VII.207) and the ‘massacre’ (*QM*, VII.208) are waged by allegedly peace-loving (*QM*, VII.207) Christians, whose ‘human feeling’ (*QM*, VII.212) is so ‘pityless’ (*QM*, VII.211) that they slaughter those ‘unoffending infidels’ (*QM*, VII.209).

At the end of Canto VII, Ahasuerus articulates a further atheistic perspective to explore the oppressed state of human nature and the falsehood of Christianity. Ahasuerus reaffirms to the Spirit that Christians beautify the essence of Christianity: ‘... whilst one hand was red /

With murder, feign to stretch the other out / For brotherhood and peace; and that they now /
Babble of love and mercy, whilst their deeds / Are marked with all the narrowness and crime’
(*QM*, VII.239-43). In other words, ‘brotherhood and peace’ (*QM*, VII.241), for those
Christians, exist only as a verbal manipulation to conceal their ‘narrowness and crime’ (*QM*,
VII.243). As an alternative, Ahasuerus instead introduces the Spirit (Ianthé) to reason in order
to demythologise religious superstitions and obtain real knowledge: ‘Reason may claim our
gratitude, who now / Establishing the imperishable throne / Of truth ...’ (*QM*, VII.245-47).

Rejecting a Christian worldview Ahasuerus, like other atheistic martyrs, persists in his
liberty of thought and desire for truth through which the mind can be comparatively
‘peaceful’ (*QM*, VII.256): ‘Thus have I stood,—through a wild waste of years / Struggling
with whirlwinds of mad agony, / Yet peaceful, and serene, and self-enshrined, / Mocking my
powerless tyrant’s horrible curse / With stubborn and unalterable will’ (*QM*, VII.254-58).

Effectively, the role of Ahasuerus articulates Shelley’s scientific reasoning and scepticism
against those forms of superstition and religion. Ahasuerus’s ghost reflects the spirit of the
past ‘goodness’ that Shelley attempts to revive, consisting of: ‘The matter of which dreams
are made / Not more endowed with actual life / Than this phantasmal portraiture / Of
wandering human thought’ (*QM*, VII.272-75). Returning to his original conviction of reason,
Shelley redefines Ahasuerus’s ‘ghost’ as a material substance or presence of ‘thought’ (*QM*,
VII.275) which questions the authority of Christianity.

IV. The Ethics of the Mind

Shelley's proleptic view of the constructs of the mind, stated in the last two cantos of *Queen Mab* (Cantos VIII and IX), evolves into a kind of ethics that monitors the advances of a scientific society. Ethics is employed to both reform society and especially the mind.

Shelley disavows the legitimacy of a Christian moral system and inclines towards scientific ethics to guide a brand-new society: 'The present now is past. / ... / The wonders of the human world to keep, / Space, matter, time, and mind. Futurity / Exposes now its treasure; ...' (*QM*, VIII.44-51). Shelley's vision influenced Karl Marx's vision of an ideal socialist society. Bernard Shaw claims that Shelley's *Queen Mab* is 'the Chartists' bible' and inspired Marxism as a social movement (qtd. in *SHTW* 45). Shelley's ethical concerns and values of religion are clearly demonstrated in his works and his correspondences prior to his writing of *Queen Mab*. In Canto VIII and Canto IX, Shelley envisaged that his new materialism of the mind will be the basis of establishing a perfect society.

In Canto VIII, Shelley's ethical vision, '[l]ove, freedom, [and] health' (*QM*, VIII.15) are the tenets of this atheistic life to reach happiness. 'Love' in this context is defined as 'sympathy with nature and one's fellowmen, tenderness of heart, benevolence' (*LC*, 418).⁵² In Shelley's materialist concept, a 'healthy' body is the foundation of the workings of the sound mind. More significantly, the freedom of the mind and the possession of love promise an earthly well-being. Shelley illustrates an earthly utopia without recourse to Christian

custom. Shelley, through the words of the Fairy, envisages that no religion exists in the future:

‘All was inflicted here that earth’s revenge / Could wreak on the infringers of her law; / One
curse alone was spared—the name of God’ (*QM*, VIII.163-65). In the future, all vices of

kings and priests in the past and the ‘present’, for Shelley, are ceased. They are all ‘tyrant[s]’
(*QM*, VIII.181) who torture the human mind and should be despised like ‘worms’ (*QM*,

VIII.184) in the future society: ‘To turn to worms beneath that burning sun, / Where kings
first leagued against the rights of men, / And priests first traded with the name of God. /

“Even where the milder zone afforded man / A seeming shelter, yet contagion there, /

Blighting his being with unnumbered ills,’ (*QM*, VIII.184-89). Shelley repeats his negation of
monarchy and the church in this future stage. The ‘... milder zone [that] afforded man / A
seeming shelter ...’ (*QM*, VIII.187-88) alludes to the church that advocates peace.

Nevertheless, Shelley doubts the necessity of the ‘milder’ (*QM*, VIII.187) church as it still
spreads ‘contagion’ (*QM*, VIII.188) or superstitious views to the innocent. The church,

according to Shelley, even prevents the ‘progress’ (*QM*, VIII.191) of ‘truth’ (*QM*, VIII.190)
and causes human dignity to become ‘the train-bearer of slaves’ (*QM*, VIII.194). According

to Shelley, ‘slaves’ refer to Christians, especially priests, as they are enslaved by their

superstitions and beliefs. At this future stage, Shelley affirms that all negative emotions or

vices no longer exist in this earthly paradise: ‘All evil passions, and all vain belief, / Hatred,
despair, and loathing in his mind, / The germs of misery, death, disease, and crime. / No

longer now the winged habitants, / That in the woods their sweet lives sing away, / Flee from the form of man; ...' (*QM*, VIII.216-21). At the end of Canto VIII, Shelley advocates his materialist philosophy as a means to realise a secular paradise:

... happiness

And science dawn though late upon the earth;

Peace cheers the mind, health renovates the frame;

Disease and pleasure cease to mingle here,

Reason and passion cease to combat there;

Whilst each unfettered o'er the earth extend

Their all-subduing energies, and wield

The sceptre of a vast dominion there;

Whilst ever shape and mode of matter lends

Its force to the omnipotence of mind,

Which from its dark mine drags the gem of truth

To decorate its paradise of peace." (*QM*, VIII.227-38)

[S]cience (*QM*, VIII.228), according to Shelley, is the major factor to enable happiness or peace of the mind. The development of the mind or cognitive development in the 'future' is based on scientific reasoning instead of religious teachings. This passage foreshadows Shelley's *Prometheus Unbound* (1818-1819), in which the Titan, Prometheus, is rescued by

Hercules and becomes ‘Good, great and joyous, beautiful and free’ (*Prometheus Unbound*, IV.577).⁵³ Likewise, the mind in *Queen Mab* is finally ‘unfettered’ (*QM*, VIII.232) and obtains ‘dominion’ (*QM*, VIII.234) or autonomy: ‘Whilst each unfettered o’er the earth extend / Their all-subduing energies, and wield / The sceptre of a vast dominion there;’ (*QM*, VIII. 232-34). Shelley even suggests that ‘matter’ (*QM*, VIII.235) or materiality is the ‘force’ (*QM*, VIII.236) of the mind and that only the autonomous mind discovers ‘truth’ (*QM*, VIII.237) and ‘paradise’ (*QM*, VIII.238).

In the last canto of *Queen Mab* (Canto IX), Shelley illustrates his secular idealism by a further examination of the mind. The necessities of Shelley’s idealism include hope, love, and virtue, but the young Shelley divorces these values from the institution of the church. The rejection of superstition and religion, according to the Fairy, leads to an earthly life of happiness or the ‘reality of Heaven’ (*QM*, IX.1):

“O happy Earth! reality of Heaven!

To which those restless souls that ceaselessly

Throng through the human universe, aspire;

Thou consummation of all mortal hope!

Thou glorious prize of blindly-working will!

Whose rays, diffused throughout all space and time,

Verge to one point and blend for ever there:

Of purest spirits thou pure dwelling-place!

Where care and sorrow, impotence and crime,

Languor, disease, and ignorance dare not come:

O happy Earth, reality of Heaven! (*QM*, IX.1-11)

Shelley's philosophy of Heaven echoes Greek Epicureanism, in which secular happiness is the ultimate wish of one's existence. This Greek philosophy was revived particularly by French materialists. French materialism not only attacks religion but develops atheistic ethics to improve human life. In one of Shelley's favourite materialist works, *The System of Nature* (1770), D'Holbach claims that happiness is the ultimate goal in a materialist world and knowing one's own self-nature can lead to happiness: 'The source of man's unhappiness is his ignorance of Nature'.⁵⁴ A constructed 'happy Earth' (*QM*, IX.1) is the 'reality of Heaven' (*QM*, IX.1). The real 'Heaven', for Shelley, is grounded in scientific practice instead of religious imagination or scientifically unproven miracles. Shelley's universe is no longer related to God but to a human sphere – 'the human universe' (*QM*, IX.3). Even though Shelley once said to Southey that 'the Universe is God', Shelley explains to Hitchener that God is simply another atheistic metaphor for describing the Universe: 'I tell him [Southey] that God is another signification for the Universe' (*CWPBS* Vol. 8, *Letters*, 142, 227).⁵⁵ Shelley's ideas of the Universe and God prefigure the assertion of Timothy Leary, American atheist materialist and psychologist. Introducing immediate science into religion, Leary

redefines the notion of God by basing theism on atheistic science: 'God is the DNA code'.⁵⁶

This 'God', for Shelley, relates to the material Universe. That is, the Universe is determined by the DNA code (God), which shapes living organisms and the thinking brain. Any pursuit, as the Fairy advises the Spirit, should rely on tangible hypotheses: 'Thou consummation of all mortal hope!' (*QM*, IX.4). Different from 'hope' in a Christian context, Shelley's 'mortal hope' (*QM*, IX.4) is earthly and scientific. In other words, Shelley implies the worthlessness of a religious 'hope' in miracles or God's mercy. Shelley's scientific claim for hope is illuminated in Canto VIII, where the necessity of 'science' (*QM*, VIII.228) is equal to that of 'happiness' (*QM*, VIII.227). For Shelley, the mind at the future stage requires a 'pure dwelling-place' (*QM*, IX.8) to reach happiness. Shelley suggests that this 'pure dwelling-place' (*QM*, IX.8) only accepts science and rejects religion as religious paradoxes can only pollute the land as well as the 'purest' (*QM*, IX.8) mind:⁵⁷ 'Of purest spirits thou pure dwelling-place! / Where care and sorrow, impotence and crime, / Languor, disease, and ignorance dare not come:' (*QM*, IX.8-10). Those negative elements, such as '... care and sorrow, impotence and crime, / languor, disease, and ignorance ...' (*QM*, IX.9-10), allude to religious contamination and perils. Shelley, therefore, suggests that with scientific reasoning those characteristics cannot 'come' (*QM*, IX.10) into the mind.

In the earlier Cantos, Shelley disputed the disguised philanthropism of Christianity via the diverse vices of Christians. Christians, for Shelley, are 'inhuman and uncultured' (*QM*,

II.149): ‘There an inhuman and uncultured race / Howled hideous praises to their Demon-God; / They rushed to war, ...’ (*QM*, II.149-51). Instead, Shelley’s true philanthropism is revealed in Canto II and strengthened in the last Cantos. In Canto II, Shelley’s view of love or virtue is presented in his idealist dwelling ‘[i]n a celestial palace’ (*QM*, II.60). In *Queen Mab*, the Fairy reminds the Spirit to ‘[l]earn to make others happy ...’ (*QM*, II.64) and suggests the significance of the past, the present, and the future (*QM*, II.65-67). The revival of the Greco-Roman spirit helps unfetter the shackles of the mind from Christian dogmas (*QM*, II.162-81) and warns against ‘Where Socrates expired, a tyrant’s slave, / A coward and a fool, spreads death around— / Then, shuddering, meets his own. / Where Cicero and Antoninus lived, / A cowed and hypocritical monk / Prays, curses and deceives’ (*QM*, II.176-81).

In this revolutionary poem, Shelley rethinks the traditional and religious constructs of the mind by means of scientific reasoning. Shelley does this by integrating the natural emotion – love – into his discussion of reason. Different from Descartes’s or Kant’s absolute reason to attain happiness, Shelley places his emphasis on the union of the body and the soul. Shelley’s anti-dualism does not lead him to adopt an anti-virtue or anti-goodness stance, as exhibited by Christianity’s condemnation of atheists. In the last scene of *Queen Mab*, love or affectionate attachment is illuminated during Henry’s gaze on Ianthe: ‘She [Ianthe] looked around in wonder and beheld / Henry, who kneeled in silence by her [Ianthe’s] couch /

Watching her sleep with looks of speechless love,' (*QM*, IX.236-38). Henry, although narrowly defined by critics as Ianthe's lover,⁵⁸ more generally refers to the carer of the '[m]oveless' (*QM*, IX.235) Ianthe. Not necessarily Ianthe's lover, Henry is a friend, a nurse, a family member, or a benevolent stranger who willingly cares for the severely injured Ianthe: 'Henry, who kneeled in silence by her couch, / Watching her sleep with looks of speechless love' (*QM*, IX.237-38). In this sense, 'virtue' (*QM*, IX.205) is Shelley's broader sense of love or benevolence in the future: 'Which thou hast now received: virtue shall keep / Thy footsteps in the path that thou has trod, / And many days of beaming hope shall bless / Thy spotless life of sweet and sacred love' (*QM*, IX.205-08). Only through 'beaming hope' (*QM*, IX.207) the world can reach an asexual happiness which consists of a 'spotless life of sweet and sacred love' (*QM*, IX.208). Earlier in 'Henry and Louisa' (1809)⁵⁹ of his Esdaile Notebook, Shelley characterises Henry as a persona of virtue or philanthropism and this image persists in *Queen Mab*. Influenced by ethical philosophy from Benedict de Spinoza (1632-1677)⁶⁰ – via Drummond's sceptical philosophy in *Academical Questions* and later Shelley's own translation of Spinoza's work – Shelley adopts Spinoza's notion that reason and emotion should reconcile with each other in the new age. Spinoza's *Ethics* were an influential moral philosophy in the long eighteenth century. In Part III, 'Concerning the Origin and Nature of the Emotions' of *Ethics*, Spinoza regards himself as the first one to determine 'the nature and force of the emotions' and guides the reader to the necessity of

emotion by interrogating Descartes's conviction of absolute reason that 'the human mind had absolute power in its actions'.⁶¹ Spinoza's scepticism grows into an emotional discourse. Spinoza accepts emotions as a positive part of human nature: 'For such emotions as hate, wrath, envy, etc., considered in themselves, follow from this same necessity and ability of nature ...' (*Ethics*, 84). Shelley's concept of nature echoes Spinoza's. In Canto VIII, Shelley points to the relationship between nature and the mind as well as emotion: 'All evil passions, and all vain belief, / Hatred, despair, and loathing in his [the human being's] mind, / The germs of misery, death, disease, and crime' (*QM*, VIII.216-17). With the advent of a scientific age (*QM*, VIII.228), those previous conflicts between the issues of reason and passion or emotion vanish: 'Reason and passion cease to combat there;' (*QM*, VIII.231). Shelley's ethics in *Queen Mab* more closely approximates scientific and secular pursuits rather than Spinoza's superficially God grounded ethics.⁶²

Love that obeys a 'natural' or genetic law, Shelley believes, can improve the world without religious morality. Shelley has examined the enchanted force of love in his love poems, in the Esdaile Notebook, to Harriet Grove – Shelley's unsuccessful love affair before his marriage to Harriet Westbrook. Many of Shelley's works, including *Alastor*, *Epipsychidion*, and *Prometheus Unbound*, continue to centre on this subject. In *Queen Mab*, Shelley's 'love' is secular and cultivated by the 'purest' mind, that is, a mind without the shackled dogma. Shelley's philosophy of the mind not merely devastates all fettered

authorities, including religion, monarchy, and government, but advocates a secular love as a significant force to advance the world. Love is not only an emotional concept, but a peaceful foundation for a perfect society. At an imagined 'future' stage in *Queen Mab*, Shelley replaces religious 'love' or virtue with natural love:

“Then, that sweet bondage which is freedom’s self,

And rivets with sensation’s softest tie

The kindred sympathies of human souls,

Needed no fetters of tyrannic law:

Those delicate and timid impulses

In nature’s primal modesty arose,

And with undoubting confidence disclosed

The growing longings of its dawning love,

Unchecked by dull and selfish chastity,

That virtue of the cheaply virtuous,

Who pride themselves in senselessness and frost.

No longer prostitution’s venom’d bane

Poisoned the springs of happiness and life;

Woman and man, in confidence and love,

Equal and free and pure together trod

The mountain-paths of virtue, which no more

Were stained with blood from many a pilgrim's feet. (*QM*, IX.76-92)

This stanza conveys Shelley's ethical concern beyond a Christian framework. This primitive pursuit refers to the freedom of the mind as Shelley believes that 'human souls' or minds naturally interact with our sensations and this genetic law is an alternative 'sweet bondage' (*QM*, IX.76). In other words, this natural good, sympathy, or love does not need any religious or 'moral' force to 'purify' the mind. Such 'moral' force or religious teaching has become the 'fetters' (*QM*, IX.79) of the mind due to the domination of 'tyrannic law' (*QM*, IX.79) or religious dogma. This natural goodness, in Shelley's view, is as simple as physical 'impulses' (*QM*, IX.80) or neurons that activate unexplainable feelings in the brain activity, including: 'Those delicate and timid impulses / In nature's primal modesty arose,' (*QM*, IX.80-81). Shelley's conception of these workings of the mind echoes Hartley's neural psychology, in which the mind is connected to a series of neural vibrations or 'impulses'. In this stanza, 'nature's primal modesty' (*QM*, IX.81) is the genetic or natural goodness. Shelley terms this feeling as 'love' (*QM*, IX.83). False love emerges in the 'future' as religiously 'dull and selfish chastity' (*QM*, IX.84) or 'virtue of the cheaply virtuous' (*QM*, IX.85) and no longer interferes with the secular life, as Shelley writes: 'No longer prostitution's venom'd bane / Poisoned the springs of happiness and life;' (*QM*, IX.87-89). Shelley constructs a vision of love in the future world which incorporates an equality of gender and the mind without

recourse to Christian vices: ‘Woman and man, in confidence and love, / Equal and free and pure together trod / The mountain-paths of virtue, which no more / Were stained with blood from many a pilgrim’s feet’ (*QM*, IX.89-92). Shelley’s concept of ‘virtue’ (*QM*, IX.91) is disconnected from religion’s self-evident ‘virtue’. The Christian ‘virtue’, for Shelley, disguises brutal killings ‘... stained with blood from many a pilgrim’s feet’ (*QM*, IX.92). Earlier in Canto V, Shelley relates religion to ‘selfishness’ (*QM*, V.22) and a source of ‘horrors’ (*QM*, V.24): ‘Twin-sister of religion, selfishness! / Rival in crime and falsehood, aping all / The wanton horrors of her bloody play;’ (*QM*, V.22-24). In this future stage, Shelley removes religious hypocrisy and envisages an ideal world where only science and love guide humans to an earthly paradise.

Focusing on the science of the mind, as recognised in this chapter, discloses Shelley’s atheistic thinking about the human mind in *Queen Mab*. This scientific monism, for Shelley, connects scientific reasoning to a new sense of the possibility of atheistic ethics. In *Queen Mab*, all ‘custom’ in government, religion, and monarchy are re-examined in order to establish a more humanistic age to liberate those oppressed thoughts and actions, which cause negative emotions in the mind. In an imagined future age, scientific thinking is a necessity to help the mind understand the materialist world and, ultimately, obtain happiness – the optimal emotional state. As anticipated by Shelley’s *Queen Mab*, our current science continually aspires towards a perfect society that provides health, freedom, and love. Despite

the weakening of the authorities of existent monarchy, religion, and the forming of democratic governments in our age, Shelley's scientific idealism remains unattained some two hundred years after *Queen Mab*. Nevertheless, Shelley's revolutionary poetics of the mind, reason, and atheism introduces the reader to the complexity of human life, as well as the gravity of scientific thinking.

¹ Carlo Collodi is the pen-name of Carlo Lorenzini (1826-1890). Collodi's idea of the fairy derives from a European tradition of fairytales. This empiricist concept of a walking puppet echoes the design of Condillac's walking statue and Mary Shelley's *Frankenstein*. More significantly, the sentimental quest of an 'artificial boy' and the appearance of a fairy reappear in a science fiction genre, for example Steven Spielberg's *Artificial Intelligence* or *A.I.* (2001), which is based on Brian Aldiss's short story entitled 'Super-Toys Last All Summer Long' and Stanley Kubrick's *A. I.* The 'Blue Fairy' is particularly named in Spielberg's *A.I.* In Collodi's *Pinocchio*, the girl who rescues the hanging Pinocchio is described as 'a good-hearted fairy' with blue hair 'liv[ing] in [a] wood for more than a thousand years'. See Carlo Collodi, *Pinocchio*, trans. E. Harden (London: Puffin, 1974) rpt. 1996, 84. Brian Wilson Aldiss, *Supertoys Last All Summer Long: And Other Stories of Future Time* (New York: Griffin, 2001). Hereafter *SLASL*. 'A.I. Artificial Intelligence', IMDb [the Internet Database], Web, 27 Feb. 2011.

² Regarding the Celtic mythology and Shakespeare's mention of Queen Mab, see James Mackillop, *A Dictionary of Celtic Mythology*, 1998 (Oxford: Oxford UP, 2004) 179; 'Mab', *Encyclopædia Britannica*, 2010 ed., Web, 25 Mar. 2010.

³ David Duff reads *Queen Mab* as a romance, yet Christopher R. Miller regards it as a fairytale. See David Duff, *Romance and Revolution: Shelley and the Politics of a Genre* (Cambridge; New York; Melbourne: Cambridge UP, 1994) rpt. 1996, 54-114. Christopher R. Miller, 'Happily Ever After? The Necessity of Fairytale in *Queen Mab*', *The Unfamiliar Shelley*, ed. Alan M. Weinberg and Timothy Webb (Aldershot; Burlington, VT: Ashgate, 2009) 69-84. Hereafter *US* as the title of Weinberg and Webb's book and 'HEA' for Miller's article.

⁴ All quotations of *Queen Mab* come from Donald H. Reiman and Neil Fraistat, eds. *Shelley's Poetry and Prose: Authoritative Texts, Criticism* (New York: Norton, 2002). Hereafter *SPP*. According to Reiman and Fraistat, *Queen Mab* is composed 'primarily between April 1812 and mid-February 1813' (*SPP*, 15). Hereafter *Queen Mab* is abbreviated as *QM*.

⁵ Even though my thesis centres on the materiality of emotion, the materialist phenomena of the mind can affirm the hypothesis of emotional materials.

⁶ See Alan Richardson, *British Romanticism and the Science of the Mind* (Cambridge: Cambridge UP, 2001).

⁷ Joseph Barrell, *Shelley and the Thought of His Time: A Study in the History of Ideas* (New Haven: Yale UP, 1947) rpt. 1967. Hereafter *STHT*. Desmond King-Hele, *Shelley: His Thought and Work* (London: Macmillan; New York: St Martin's, 1960). Hereafter *SHTW*. Ross Greig Woodman, *The Apocalyptic Vision in the Poetry of Shelley* (Toronto: U of Toronto P, 1964). Hereafter *AVPS*. Critics, including Hugh Roberts, Alan Richardson, Paul Hamilton, and Merle A. Williams, though not exclusively examining *Queen Mab*, also follow Barrell, King-Hele, and Woodman, who revived the significance of the long eighteenth-century philosophy and science in Shelley's studies. Roberts demonstrates Shelley's ambivalence between Lucretian materialism and Romantic idealism. Hamilton provides an overall analysis of Shelley's inheritance of materialism (Holbach) and empiricism (Hume) in *Queen Mab*. See Hugh Roberts, *Shelley and the Chaos of History: A New Politics of Poetry* (University Park, PA: Pennsylvania State UP, 1997). Paul Hamilton, 'Literature and Philosophy', *The Cambridge Companion to Shelley*, ed. Timothy Morton (Cambridge: Cambridge UP, 2006) 166-84. Hereafter 'L&P'. Merle A. Williams, 'Contemplating Facts, Studying Ourselves: Aspects of Shelley's Philosophical and Religious Prose', *US*, 199-219.

⁸ *SHTW*, 27-47.

⁹ See C. E. Pulos, *The Deep Truth: A Study of Shelley's Scepticism* (Lincoln, NE: U of Nebraska P, 1962). Hereafter *DT*.

¹⁰ Miller simply relates 'Shelley's radical ideas' to the 'structuring frame' of fairytale which derives from David Duff's approach of 'romance' ('HEA', 70).

¹¹ Prior to *Queen Mab*, Shelley's distrust of religious dogmatism in his early works, including his first published atheistic and gothic novel – *Zastrozzi: A Romance* (1810) – and *The Necessity of Atheism* (1811), reveals the foundation of his controversial philosophy that is developed further in *Queen Mab*. *The Necessity of Atheism* is the bolder of these two earlier works and instigated his expulsion from Oxford University in March 1811.

¹² Barrell, King-Hele, and Hamilton all recognise the significance of *Queen Mab* throughout Shelley's literary career. Barrell regards *Queen Mab* as 'the most purely philosophical poem that Shelley ever wrote' (*STHT*, 64). King-Hele claims that *Queen Mab* is 'the clearest and sharpest of his attacks on society-as-it-is' (194-95). Hamilton, like King-Hele, notes that *Queen Mab* is 'Shelley's first long poem' (173). Nevertheless, Kenneth Neil Cameron notes that 'Henry and Louisa' (1809) is 'Shelley's first attempt at a long poem' (260) and this 'radical social philosophy' (261) influences *Queen Mab*. Desmond King-Hele, *Erasmus Darwin and the Romantic Poets* (London: Macmillan, 1986) 194-95. Hereafter *EDRP*. 'L&P', 166-84, 173. Percy Bysshe Shelley, *The Esdaile Notebook: A Volume of Early Poems*, ed. Kenneth Neill Cameron (London: Faber, 1964) 260-61. Hereafter *EN*.

¹³ Even though research about human intelligence is challenged to some degree, the understanding of the workings of the human mind, for example genius or autism, remains fascinating to scientists. As a specialist of genetics and human behaviour, Matt Ridley states the interrelationship between nature and nurture: 'IQ is approximately 50 per cent "additively genetic", 25 per cent influenced by the shared environment and 25 per cent influenced by environmental factors unique to the individual' (90). Ridley also emphasises the influence of genes on our 'self-quest' in life: 'Having "sporty" genes makes you want to practise at sport; having "intellectual" genes makes you seek out intellectual activities. The genes are agents of nurture' (92). Ridley's words explain why those 'intelligent' dissidents fight against unreasonable custom. From a physiological explanation, without being radical these dissidents will feel 'fettered' like genetically fierce animals and, therefore, become unhappy. Their struggle is the only direct way to satisfy their oppressed mind or scientifically to activate their unconnected neural network in the brain. In *Queen Mab*, Shelley is a typical image of this kind of radical. See Matt Ridley, *Nature via Nurture: Genes, Experience and What Makes Us Human* (London: Fourth, 2003) 90, 92.

¹⁴ Distinct from neuroscientific psychology that refers the human mind to the materialist structure, atheistic metaphysics, although detached from religious hypotheses, denies the materiality of the mind. Nevertheless, I recognise that atheistic 'metaphysics' can be classified as atheistic materialism because the term 'mind' per se is still a tangible material (sign or sound) that is physically received by the brain through sight or hearing.

¹⁵ This prose, according to Mary Shelley's Note to it, was written in 1815. Percy Bysshe Shelley, 'Speculations on Metaphysics', *The Complete Works of Percy Bysshe Shelley*, ed. Roger Ingpen and W. E. Peck, vol. 7 (London: Benn, 1965) 59-83, 62. Hereafter *CWPBS* Vol. 7.

¹⁶ Like those critics who attempt to bridge the gap between science and Romantic literature, Richard Holmes, in his *The Age of Wonder*, questions the argument of anti-science in Romanticism and instead relates Romantic poetry to science. Richard Holmes, *The Age of Wonder: How the Romantic Generation Discovered the Beauty and Terror of Science* (London: Harper, 2008) rpt. 2009, xv-xxi.

¹⁷ Richard Holmes claims that '[t]he "infame" of Voltaire was the Church in general; but the same phrase had also been adopted by the Illuminists [members of secret societies] as its motto referring specifically to Christ'. Richard Holmes, *Shelley: The Pursuit*, 1974 (London: Flamingo, 1994) 200. Hereafter *STP*.

¹⁸ Holmes translates and interprets this epigraph in a chapter entitled 'A Poem and a Wife: *Queen Mab* 1813' and emphasises Shelley's 'ideas of changing society' (*STP*, 200). In Reiman and Fraistat's translation this epigraph reads: 'Give me somewhere to stand, and I will move the earth' (*SPP*, 16). I prefer Holmes's version as he incorporates a physical 'earth' into a social context.

¹⁹ Percy Bysshe Shelley, *The Complete Poetry of Percy Bysshe Shelley*, ed. Donald H. Reiman and Neil Fraistat, vol. 2 (Baltimore; London, Johns Hopkins UP, 2000-2004) 503. Hereafter, *CPPBS* as the title of this book.

²⁰ In 'Shelley and Jesus', David Fuller discusses Shelley's *Queen Mab* and his other works in a religious discourse, drawing on Christianity and Shelley's (anti-) religious values. See David Fuller, 'Shelley and Jesus', *The Durham University Journal* 54.2 (1993): 211-23. Hereafter *DUI* as the title of this journal.

²¹ Twentieth-century physicalism, according to *The Oxford English Dictionary*, was refined by Erich Harth to explain from 'physical properties and laws' in all reality to 'all mental phenomena' in 1993. Shelley's materialist hypothesis approximates the inference of current physicalists who introduce more scientific understanding into the materialism of his day.

²² The influence of Berkeley on Shelley, according to Pulos, is demonstrated in Drummond's *Academical Questions* and Mary Shelley's comments that refer Shelley to 'a disciple of Berkeley' (*DT*, 37). Even so, Shelley's philosophy is too diverse to be classified into Berkeley's empiricism.

²³ George Berkeley, *A Treatise Concerning the Principles of Human Knowledge*, *British Empirical Philosophers: Locke, Berkeley, Hume, Reid and J. S. Mill*, ed. A. J. Ayer and Raymond Winch (London: Routledge, 1952) 161-290, 178.

²⁴ William Drummond, *Academical Questions*, 1805 (Delmar, NY: Scholars, 1984) 289. Hereafter *AQ*.

²⁵ Ann Wroe, *Being Shelley: The Poet's Search for Himself* (London: Cape, 2007) 14.

²⁶ *CWPBS* Vol. 8, 232-33, 239-44.

²⁷ *PWPBS* Vol. 5, 215-47.

²⁸ Paul Foot, *Red Shelley*, 1980 (London: Bookmarks, 1988) 13. Hereafter *RS*.

²⁹ Percy Bysshe Shelley, *The Prose Works of Percy Bysshe Shelley*, ed. E. B. Murray, vol. 1 (New York: Oxford UP, 1993) 61-73, 64. Hereafter *PWPBS*.

³⁰ *CPPBS* Vol. 2, 263-77.

³¹ Note 13 to *Queen Mab* includes Shelley's *The Necessity of Atheism* and his supplement to it, at the end of which Shelley jots down a Latin passage from Spinoza's '*Tract. Theologico-Pol. chap. i. page 14*' (*CPPBS* Vol. 2, 277). Reiman points out 'Shelley's translation of Spinoza at Marlow in 1817' and details its sources. See Donald H. Reiman, ed. *Shelley and His Circle, 1773-1822*, vol. 8 (Cambridge, MA: Harvard UP, 1986) 738-39, 738.

³² Piaget explored the mind from genetic biology and became an influential psychologist in the human development of intelligence in the twentieth century. See Ulrich Müller, Jeremy I. M. Carpendale, and Leslie Smith, Introduction, *The Cambridge Companion to Piaget*, ed. Ulrich Müller, Jeremy I. M. Carpendale, and Leslie Smith (Cambridge: Cambridge UP, 2009) 1-44, 8. Also refer to Jean Piaget, *Biology and Knowledge: An Essay on the Relations Between Organic Regulations and Cognitive Processes*, 1966 (Chicago: U Chicago P, 1971).

³³ This letter, written before 6 March 1813, was not selected in Ingpen's *CWPBS* Vol. 9. I instead refer to Percy Bysshe Shelley, *The Best Letters of Percy Bysshe Shelley*, ed. Shirley

Carter Hughson (Chicago: McClurg, 1892) 42.

³⁴ Percy Bysshe Shelley, 'Passion', *EN*, 41-42, 42.

³⁵ Barbara Charlesworth Gelpi, *Shelley's Goddess: Maternity, Language, Subjectivity* (New York: Oxford UP, 1992) 3. Hereafter *SG*.

³⁶ Gelpi, quoting Newman Ivey White's inquiries, draws on George Ensor's *Independent Man* (1806) and the young Shelley's thinking of the influence of the nurse's 'milk' on the baby: 'the [wet] nurse's "soul" entering with her milk' (*SG*, 3).

³⁷ More discussion about Frankenstein's monster will be presented in later chapters.

³⁸ See *SLASL*.

³⁹ 'On Life', *SPP*, 505-09, 506. Hereafter 'OL'.

⁴⁰ Like some Shelley critics who relate Shelley's philosophy to metaphysics, Pulos concludes that '... the poet was fundamentally a disciple of Plato and of Berkeley; emphasizing his preference of French materialism to Christianity ...' (*DT*, 2). Following Pulos's point, Duffy states that '[Shelley's] *On Life* provides a clear account of the development of Shelley's philosophical thought from materialism to scepticism'. Cian Duffy, *Shelley and the Revolutionary Sublime* (Cambridge: Cambridge UP, 2005) 63. Hereafter *SRS*.

⁴¹ Acquainted with Ovid's *Metamorphoses*, Shelley may refer the Fairy Queen to the God of Sun (Helios) and imagine a chariot to take the mortal (Ianthe in *Queen Mab* and Phaethon in *The Metamorphoses*) to the ideal palace through atmosphere and stars. In *Queen Mab*, Shelley avoids a Phaethonian tragedy and instead brings the young Ianthe intelligence. Regarding the myth of Helios and Phaethon, see Ovid, *The Metamorphoses of Ovid*, trans. Mary M. Innes, 1955 (Harmondsworth: Penguin, 1981) 49-58.

⁴² In my following chapters, I will have more alchemical discussion in *Alastor* and *Frankenstein*.

⁴³ On 26 December 1811, Shelley wrote to Hitchener and reported his comments on Southey shortly after his meeting with Southey at William Calvert's house in Keswick.

⁴⁴ Frederick A. Lange, in *History of Materialism*, gives this credit to D'Holbach's book (qtd. in *SHTW* 39).

⁴⁵ Cameron notes that 'PBS [Shelley] must have read about Holbach's *système* in Barruel's *Memoirs Illustrating the History of Jacobinism* while he was at Oxford' (Reiman and Fraistat 502). In Reiman and Fraistat's inquiry into *Queen Mab*, Shelley exposed his reading of Holbach's *System of Nature* to Godwin on 3 June 1812 and began to translate this book into English within two months (*CPPBS* Vol. 2, 503).

⁴⁶ Shelley replied to his father's letter, dated 6 February 1810 [misdated for 1811], expressing his own stance of atheism.

⁴⁷ This phrase derives from the Latin epigraph in *Queen Mab*.

⁴⁸ This little poem, with thirty lines, appears in Shelley's Esdaile Notebook, numbered *Esd#51*. See *EN*, 161-62.

⁴⁹ Percy Bysshe Shelley, *The Wandering Jew*, ed. Bertram Dobell (London: Reeves, 1887) 40. Hereafter *WJ*.

⁵⁰ See Percy Bysshe Shelley, 'The Wandering Jew; or, The Victim of the Eternal Avenger', *CPPBS* Vol. 1. 43-87, 43.

⁵¹ Baudrillard, French poststructural sociologist, is seen as a distinguished scholar who challenges traditional conceptions of truth or reality. He follows scepticism and coins 'hyperreality' to rethink 'realities' that, in his concept, are simply constructed. Echoing Shelley's negating philosophy, Baudrillard's 'Theory of Simulacra' particularly touches on a man-made God and other high-tech or virtual 'realities'. See Jean Baudrillard, *Simulacra and Simulation*, 1987, trans. Sheila Glaser (Ann Arbor, MI: U of Michigan P, 1994). Hereafter *SS*.

⁵² See Ellis's second definition of love in Shelley's works.

⁵³ Percy Bysshe Shelley, *Prometheus Unbound*, *SPP*, 209-86, 286.

⁵⁴ Baron D'Holbach, Preface, *The System of Nature; or, Laws of the Moral and Physical World*, trans. H. D. Robinson (New York: Tsel, 1836) iix-x, iix, Web.

⁵⁵ See Shelley's letter to Hitchener dated 2 January 1812.

⁵⁶ Timothy Leary, *The Politics of Ecstasy* (New York: Putnams, 1968) 200.

⁵⁷ Echoing certain radical Enlightenment philosophies of education, Shelley's intention to disseminate atheism and science through education is identical to the aim of current schooling. Rather than Christian Creationism, Darwin's evolutionism, in this sense, widely penetrates into mainstream education systems and school children's minds.

⁵⁸ Reiman, Fraistat, and particularly Christopher Miller relate Henry to Ianthe's lover. Due to some suggestive lines in *Queen Mab* (*QM*, VIII.31-40), Miller would rather discuss this love between Henry and Ianthe in the imagery of 'Sleeping Beauty' ('HEA', 70, 82). Regarding Reiman and Fraistat's interpretation, see footnote of *QM*, IX.183, *SPP*, 70.

⁵⁹ 'Henry and Louisa', *EN*, 131-37.

⁶⁰ Benedict de Spinoza, also known as Baruch Spinoza, is a radical Jewish-Dutch philosopher, born and educated in a Portuguese-Jewish community in Amsterdam. The radicalism in his works demonstrates the ambivalence between divine reason and human emotion, that is, God or Nature. The *Ethics* is composed of five parts, including Part I. 'Of God', Part II. 'Of the Nature and Origin of the Mind', Part III. 'Of the Origin and Nature of the Emotions', Part IV. 'Of Human Bondage, or Of the Strength of the Emotions', and Part V. 'Of the Power of the Intellect, or Of Human Liberty'. Benedict de Spinoza, *Ethics*, ed. and trans. Edwin Curley (London: Penguin, 1996).

⁶¹ Benedictus (sic) de Spinoza, *Ethics*, trans. Andrew Boyle (N.p.: Dent, 1934) 83, Web. Hereafter I adopt Boyle's translation of *Ethics*.

⁶² In *Ethics*, Spinoza asserts the spirit of reason and the freedom of the mind, yet he, like most early metaphysical philosophers, still confirms that God is existent and infinite. Some radical thinkers, like Spinoza, are potentially atheists.

CHAPTER THREE

New Materialism: Mary Shelley's *Frankenstein* (1818)

My chapter examines modern ideas of materialism, as well as the legacy of eighteenth-century and early philosophy, in the 1818 version of *Frankenstein*¹ to reassess the significance of materialism in this novel. This reassessment recognises that *Frankenstein* is enmeshed in a complex exchange of philosophical and scientific ideas to which Mary Shelley responded both positively and negatively. Mary Shelley's novel, at varying moments in the course of its narrative, simultaneously, avows and critiques different philosophic and scientific interpretations taken up in relation to its central preoccupation with the subject of mind, emotion, and brain. Mary Shelley's blurring and critiquing of these various philosophical and scientific systems seeks to synthesise them with a view to advocating what is understood as a 'new' materialism.² Through this notion of 'new' materialism Shelley both expresses dissatisfaction with and seeks to revise contemporary materialism and metaphysics. Shelley's 'new' materialism sought to understand the immaterial aspects of the mind and emotion in scientific terms. With his application of materialist and scientific principles to these immaterial aspects of human nature and experience, Shelley wanted to temper philosophical ideas of materialism and metaphysics by recognising those immaterial factors of emotion and thought.

Mary Shelley shared in Shelley's and Byron's preoccupation with the science of the

mind and emotion. The issue of the body, robotics, and cybernetics in *Frankenstein* closely relates to early philosophical and scientific ideas of eighteenth-century materialism, which advocated a concept of the mechanical body that encompassed both the human mind and emotion. Despite the fact that a number of critics point to scientific overreaching as the key to *Frankenstein*, the connection between eighteenth-century materialism and thinking about the mind in this novel has not been fully explored.³ In the initial chapters of *Frankenstein*, Mary Shelley introduces the reader to the mechanism of the body by drawing on a materialist worldview both to expose the limitations of this model and to explain the complexities of the mind. Due to the inadequacy of scientific evidence in support of the hypothesis that ‘matter’ is the only substance that can comprise a living body, eighteenth-century French materialism faced strong opposition from those who believed in the immortality of the ‘spirit’ or ‘soul’.

What I understand as ‘new materialism’⁴ in *Frankenstein* inherits certain assumptions from French materialism, as well as Hellenic philosophy, and develops the connection between the concept of machine and living organism in a bid to reconcile the intangible mind with the physical world. From a materialist perspective, the mind or the ‘soul’ is seen as an extension of the physical body. This thinking also finds an affinity with later notions of physicalism which, according to the *Oxford English Dictionary*, operates with the assumption that ‘physical processes’ can ‘account for all mental phenomena’.⁵

Frankenstein acts as a conduit for dialogues between these types of materialism and

other philosophical discourses much debated in Mary Shelley's own time. The breadth of Mary Shelley's readings in the arts and sciences explains the extent to which Victor Frankenstein⁶ crosses the boundaries between literary and scientific perspectives.⁷ This chapter on *Frankenstein* draws together the often polarised perspectives of literature and science, Creationism and reason, Stoicism and Epicureanism, vitalism and materialism, and Romantic idealism and scientific realism.

I. Alchemy and Hellenism: From the Body to the Emotions

In *Frankenstein*, the novel's discourse of the body is rooted in a materialist worldview, which is closely related to the alchemists' ultimate desire for the mystery of vitality and the natural philosophers' theory of the elixir of life. Frankenstein is a symbol of both Enlightenment man⁸ and a mysterious alchemist, as is evident in his explanation for the reason that he strives to discover the secret of life:

I saw how the fine form of man was degraded and wasted; I beheld the corruption of death succeed to the blooming cheek of life; I saw how the worm inherited the wonders of the eye and brain. I paused, examining and analysing all the minutiae of causation, as exemplified in the change from life to death, and death to life ... I alone should be reserved to discover so astonishing a secret.⁹

By implication, Frankenstein challenges the irreversibility of death by scientifically

discovering ‘the minutiae of causation’ (*F*, 30) of life and death. His fascination with the secret of re-animation and his quest for the ‘elixir’ of life or the Philosopher’s Stone is derived from early alchemists, such as Cornelius Agrippa (1486-1535). In Mary Shelley’s novel, Agrippa’s theory stimulates Frankenstein to discover the secret of life.¹⁰ Despite his father’s mockery of alchemy, Frankenstein continues his enthusiasm for the alchemical sciences:

... My father looked carelessly at the title-page of my book [‘a volume of the works of Cornelius Agrippa’ (*F*, 21)], and said, “Ah! Cornelius Agrippa! My dear Victor, do not waste your time upon this; it is sad trash.”

... I should certainly have thrown Agrippa aside.... It is even possible, that the train of my idea [from Agrippa’s alchemy] would never have received the fatal impulse that led to my ruin. But the cursory glance my father had taken of my volume by no means assured me that he was acquainted with its contents; and I continued to read with the greatest avidity.

When I returned home, my first care was to procure the whole works of this author, and afterwards of Paracelsus and Albertus Magnus. I read and studied the wild fancies of these writers with delight.... (*F*, 21-22)

In addition to Agrippa and Magnus, Paracelsus was also an influential alchemist who devoted himself to experimentation on the human body and influenced the later creation hypotheses

of a homunculus (literally, ‘little man’).¹¹ The alchemists’ desire for life and immortality is the impetus behind the rationalist and scientific Frankenstein taking up alchemy, as he gradually realises the limitations of contemporary natural philosophy and its theories of re-animation. Enlightened by alchemical theories, Frankenstein reluctantly, at first, embarks on the creation of ‘a being like [him]self or one of simpler organization’ (*F*, 31) but he eventually resolves ‘to make the being of a gigantic stature ... about eight feet in height, and proportionably large’ (*F*, 32). It is explicitly clear in the text that alchemy’s notion of the homunculus creation is unable to satisfy Frankenstein’s ambition.

Mary Shelley’s description of alchemy in *Frankenstein* was influenced by ideas from both her father, William Godwin, and partner, Shelley. Both Godwin and Shelley were familiar with the studies of alchemy and, inevitably, these interests exerted their influence on Mary Shelley’s imagination in *Frankenstein*.¹² Walter Scott (1771-1832) regarded ‘*Frankenstein*’ as ‘a novel upon the same plan with [Godwin’s] *St Leon*’.¹³ According to Maurice Hindle, ‘Godwin’s “alchemical” novel, whose hero, a man of Faustian ambitions, makes a pact in which he takes the curse of immortality in exchange for the Philosopher’s Stone and the Elixir of Life’ (‘HFI’, xxxviii). In *Frankenstein*, we discover that Frankenstein never forgets the fact that his wild imaginative creation was originally enlightened by the work of alchemists, even though he is equally familiar with the ‘natural philosophy’ taught by his professors – M. Krempe and M. Waldman – at Ingolstadt (*F*, 26-28). Frankenstein

fuses together the creative theories of alchemy with the practical insights of natural philosophy:

Besides, I had a contempt for the uses of modern natural philosophy [e.g., chemistry]. It was very different, when the masters of the science sought immortality and power; such views, although futile, were grand: but now the scene was changed. The ambition of the inquirer seemed to limit itself to the annihilation of those visions on which my interest in science was chiefly founded.

(*F*, 27)

Frankenstein's enthusiasm for re-animation derives from alchemy and prefigures scientific explorations in Mary Shelley's own time. References to these 'skills' of re-animation can be found in alchemy, voodoo, mummification, and ancient reanimation myths. Contemporary scientific theories and advances of her day informed Mary Shelley's depiction of Frankenstein's understanding of the structure of the body and the principles of life. In *Frankenstein*, these theories included physiology, anatomy, and chemistry (*F*, 30). For Frankenstein, vitality within the mechanical body is 'a mystery' (*F*, 30): 'One of the phænonema (sic) which had peculiarly attracted my attention was the structure of the human frame, and, indeed, any animal endued with life' (*F*, 30). By explaining the mechanism of life, re-animation challenged both a theological worldview and the concept of divine design.

Frankenstein's alchemical pursuit, narrated in the opening chapters of *Frankenstein*,

presents a subtle relationship between the physical body and the invisible mind, which had also been a source of intrigue for ancient Greek philosophy. Those intricate relations between the body and the mind stated in Hellenic philosophy are also reflected in *Frankenstein*.

Enlightenment philosophers revisited ancient Greek thought to understand the relationship between the body and the mind.¹⁴ In Hellenic philosophy, the stark differences between Stoicism and Epicureanism (or atomism) are reflected in their perspectives on the mind and the body. Such prominent debates recurred in the eighteenth century and Mary Shelley's own time, as well as extending into our own current scientific age. *Frankenstein* inclines the reader towards a materialist worldview, yet suggests that such a model leaves the complexity of the mind in Shelley's novel unresolved. At the very end, Frankenstein dies in anger and agony as death becomes the ultimate resolution for the Monster to cease his agitated mind: '...the bitter sting of remorse may not cease to rankle in my wounds until *death* shall close them for ever' [emphasis added] (*F*, 156). Even today neuroscientists have so far failed to locate all the chemical substances that control the mind or emotions. Nevertheless, some neurotransmitters have been identified, including acetylcholine, serotonin, and dopamine, and go some way to explain the mystery of the mind.¹⁵ According to such chemical mechanisms, the 'self' is the sum of an individual's brain activity and is reduced simply to matter rather than comprised of a non-material mind capable of linguistic nuances, poetical expression, and creative thought. In this materialist account, the studies of physical brain lesions exemplify

the direct relationship between the mind and the brain.

This concept of a mechanism of the mind and the body prevalent in eighteenth-century materialism, as found in Cartesian philosophy and theories of La Mettrie discussed later,¹⁶ has its origins in early Greek Stoicism and Epicureanism. The original concept of the mind in Stoicism was also the dominant worldview of the Epicureans, both of which approximated later theories of materialism. In fact, Epicurus's philosophy takes the form of 'reductionism' and is mainly based on the thoughts of Democritus and Aristotle. The main reason, according to Tim O'Keefe, that Epicureans avoid explaining affections or sensations, as Democritus's atomism stresses, is that 'it is unacceptable to abolish sensible qualities from one's ontology in this way, because the s[c]epticism that results from such a position would make life impossible to lead'.¹⁷ Instead, they believed in 'the reality of sensible qualities' (*EF*, 6) and as such, as O'Keefe argues, '[t]he Epicureans are materialists, holding that the only things that exist *per se* are bodies and "void", which is just empty space' (*EF*, 1). Following Epicurus (ca. 342-270 B.C.), the influential Epicurean Titus Lucretius Carus (ca. 96-55 B.C.) expresses a considerable number of materialist views in his *On the Nature of Things* (i.e., *De rerum natura*).¹⁸ Mary Shelley had also read parts of Lucretius's writings enjoyed by Shelley. Lucretius refuted the hypothesis of the Pythagoreans and Plato that the soul lives in the body and escapes with the death of the body. Lucretius, following atomism and Epicureanism, contends that the mind, the soul, and the spirit are parts of the body. Regarding atomism of

the mind and the mortality of the soul, Lucretius further suggested that the mind is ‘delicate and composed of minute particles and elements much smaller than the flowing liquid of water or cloud or smoke’ (221) and ‘when the body has perished, you must confess that the spirit [mind, or soul] has passed away, torn to pieces throughout the body’ (249).¹⁹ This atomic concept connects with *Frankenstein*, especially in those moments when Frankenstein attempts to unshackle his mind from torment: “‘Oh! stars, and clouds, and winds, ... if ye really pity me, crush sensation and memory; let me become as nought...’ (F, 101). In this context, ‘sensation and memory’ (F, 101) are ascribed to Frankenstein’s corporeal mind and it is suggested that only through death can the mind become ‘nought’ (F, 101). Such a statement echoes Epicureans’ own attempts to dispel the fear of ‘death’. Epicurus and Epicureans believe in optimism (avoiding pessimistic scepticism, determinism, fatalism) and, ultimately, strive to achieve freedom and happiness.

Unlike the extreme pursuit of Epicureanism for freedom, Stoic materialism emphasised the significance of self-control and meditation and these ideas are also detectable in *Frankenstein*. The Stoic school, called ‘the school of the Porch’ and founded by Zeno of Citium, was the ‘main rival of the Epicurean school under the late Republic and early Empire’.²⁰ Like Eastern philosophers, Stoics disapproved of the excess of sensory freedom and recognised that environmental stimuli are the source of an agitated mind. Thus, they resist excessive sensory pursuits and enjoyments in order to obtain a peaceful ‘mind’.

Frankenstein's father (Alphonse) symbolises an absolute Stoic. Revealingly, Frankenstein reminds himself of his father's words during his studies at Ingolstadt: 'A human being in perfection ought always to preserve a calm and peaceful mind, and never allow passion or a transitory desire to disturb his tranquillity' (*F*, 33). This Stoic philosophical viewpoint aims to conquer the fear of death and recalls Lucretius's materialism: 'Those maxims of the Stoics, that death was no evil, and that the mind of man ought to be superior to despair ...' (*F*, 46). Even though the fundamental hypothesis of Stoicism approximates materialism, it differs from the dualism between the body and the mind debated in the philosophy of Plato and, much later, Descartes. Stoic 'dualism' stresses the significance of the body *per se*. In *Stoic Studies* (1996), A. A. Long indicates that '[t]he Stoics distinguish the mind and the soul (of which the mind is a part) from the body, but they take the soul itself to be corporeal'.²¹ Long concludes that Stoicism 'is not a dualism of matter and incorporeal substance' (*SS*, 226). In other words, Stoics emphasise the mechanism of the body but, more importantly, do not permit emotion to disturb the corporeal mind. This Stoical idea of resistance to negative emotions, observed in *Frankenstein*, finds an affinity with those materialist accounts of the workings of the mind.

In *Frankenstein*, Mary Shelley demonstrates a variety of cases in support of Stoical materialism. She notices that the mind can be influenced by the environment and other outward physical stimuli. Bodily exercise, labour, society, changes in environmental factors,

forgiveness, and imagination, as *Frankenstein* suggests, could dispel negative feelings and help to unite a mind at peace with its body. Frankenstein states that ‘exercise and amusement would soon drive away such symptoms [of pain]’ (*F*, 34) which, in the 1831 version of *Frankenstein*, are specified as ‘incipient disease’ (*HF*, 57). Reporting little William’s death to Frankenstein by letter, Frankenstein’s father stresses the importance of peace of mind:

Come, Victor; not brooding thoughts of vengeance against the assassin, but with feelings of peace and gentleness, that will heal, instead of festering the wounds of our minds. Enter the house of mourning, my friend, but with kindness and affection for those who love you, and not with hatred for your enemies. (*F*, 45-46)

Like the Stoic ‘maxim’ that Frankenstein was taught by his father, Alphonse here suggests that anger (from ‘vengeance’) or ‘hatred’ is poison to the mind and ‘kindness and affection’ (*F*, 46) will dispel such ‘evil’. The way in which emotions change via bodily effort is described in Frankenstein’s ambiguous feelings towards a materialist view: ‘Sometimes I could cope with the sullen despair that overwhelmed me ... by bodily exercise and by change of place, some relief from my intolerable sensations’ (*HF*, 97). Mary Shelley’s novel follows Stoic philosophy, but sometimes those practices are found to be invalid and its ideas are critiqued by those characters who are overcome by tremendous emotional agitations. A clear example of this is the scene set in the Irish prison, where Frankenstein’s Stoical father attempts to dispel Frankenstein’s sadness and madness by reminding him of his familiar

home and family. Frankenstein states: 'My father tried to awaken in me the feelings of affection. He talked of Geneva, which I should soon visit – of Elizabeth [his cousin and wife to be], and Ernest [his younger brother] ...' (*F*, 127). Nevertheless, Frankenstein's father, travelling from Geneva to rescue Frankenstein 'from the vexations of a criminal charge' (*F*, 126), cannot simply dispel Frankenstein's mental trauma through these 'positive' kinds of re-imaginings. Effectively, Frankenstein's trauma is dominated by a 'negative' memory of the Monster: 'The past appeared to me in the light of a frightful dream [i.e., Frankenstein's ambition for creation]' (*F*, 127). Accordingly, his father's Stoic philosophy fails to heal Frankenstein's broken heart:

... [My father's] words only drew deep groans from me. Sometimes, indeed, I felt a wish for happiness; and thought, with melancholy delight, of my beloved cousin [Elizabeth]; or longed ... to see once more the blue lake and rapid Rhone ... but my general state of feeling was a torpor.... At these moments I often endeavoured to put an end to the existence I loathed (*F*, 127)

In extreme pain, Frankenstein turns to the alternative notion of a Lucretian suicide or self-determined death, invoked by his utterance: 'At these moments I often endeavoured to put an end to the existence I loathed ...' (*F*, 127). Despite the fact that Stoic materialist principles are created to calm the corporeal soul, these seemingly 'scientific' practices in *Frankenstein* still choose to ignore the psychological and emotional effects of pain. Apart from

contributing to religious or mystic debates on dualism, Stoicism also sought to convey positive values. According to Long, ‘Stoic philosophers maintained that happiness consists in living harmoniously ... or living in harmony with nature ...’ (SS, 202). More importantly, based on ‘Zeno’s original formulation of the ethical goal’, Stoics sensed that people’s unhappiness derives from living ‘in conflict’ (SS, 202).

With increased understanding of the close relationship between the body and the mind, current medical practices evident in the prescription of tranquillizers, Prozac, and emotional therapies, though still imperfect, offer some forms of alleviation to the patient. Mary Shelley’s *Frankenstein* partially advocates the value of Stoic materialist views in order to balance Stoic self-control against Epicurean self-liberation. Platonic philosophy is also central to how Mary Shelley conceives of her revised form of materialism in *Frankenstein*, which seeks to blend the established views of classical materialism with the recent scientific innovations of her own day. A weariness of the perils of excessive freedom, morality or ethics is a strikingly cautionary aspect of Mary Shelley’s own re-examination of Plato’s philosophy which permeates *Frankenstein*. In ‘On the *Symposium*’, Shelley notes that Plato’s attempt to ‘proceed[d] those emanations of moral and metaphysical knowledge’ is because ‘an incalculable variety of popular superstitions’ undermine human values.²² Platonic love, derived from Plato’s *Phaedrus* and *The Symposium*, also advocates this harmonious rationale. Overwhelming and ‘harmful’ emotions or excessive sexual impulses are controlled through

moral education of self-discipline and ‘reason’. Christopher Gill states that ‘the “erotic-educational” relationship ... is one between an older and a younger male, in which the older initiates the younger into “virtue”, as understood in male citizen circles’. Such a relationship is seen as ‘an ideal form of love’ which is ‘non-sexual [and] philosophical’ in character.²³

Clearly, Platonism seeks to avoid emotional agitations derived from Eros or sexuality.

Similar to Stoic philosophy, Platonic reason emphasises the tranquillity of the mind in which reason provides an ethical guide and steers the self or the society in the right direction.

In *The Symposium*, Socrates conveys the danger of ‘Love’ to Agathon and Phaedrus and stresses the significance of ‘not love’.²⁴ Poetically, Socrates states his point of view: ‘Peace among humankind and windless calm at sea, / Rest for the winds, and sleep for those distressed’ (*Symposium*, 31). Socrates, through Plato, advocates the importance of peace of mind and thinks that reason can be a useful agent to resist powerful emotional stimuli. This philosophy of love is demonstrated in *Frankenstein* and restated in Elizabeth’s ‘love letter’ to Frankenstein:

I confess to you, my cousin [Frankenstein], that I *love* you, and that in my airy *dreams of futurity* you have been my *constant friend and companion*. But it is your *happiness* I desire as well as my own, when I declare to you, that our *marriage* would render me *eternally miserable, unless it were the dictate of your own free choice*. ... I, who have *so interested an affection* for you, may increase

your *miseries* ten-fold, by being an *obstacle* to your wishes. [Emphasis added] (*F*, 130)

This art of love for Elizabeth echoes Platonism, which avoids excessive affections. The implication is that Platonism teaches Elizabeth to curb the desires of her necessary, but passionate, love until the rites of marriage have been satisfied. Elizabeth writes to Frankenstein that without love their ‘marriage would render [her] eternally miserable’ (*F*, 130). Essentially Elizabeth longs for *romantic* or mutual love instead of purely Platonic or asexual love, but is still able to practice self-restraint and contain her desires.

In *Frankenstein*, the scientific quest for knowledge or progress relates to Epicurean freedom, but Stoicism and Platonism provide their own unique ethical framework. Some *Frankenstein* critics condemn the novel as harmful to society due to its preoccupation with the potential perils of freedom.²⁵ Such condemnation may sound irrational but, if the moral values of Stoicism and Platonism are taken into account, Frankensteinian overreaching becomes a kind of devastating power and the cause of Frankenstein’s despair and eventually tragic death. In fact, an ethical framework is evident at the end of *Frankenstein* when Frankenstein confesses to his scientific overreaching to Walton:

I trod *heaven* in my thoughts [i.e., the rapture of re-animation], now *exulting in my powers, now burning with the idea of their effects*. From my infancy I was imbued with high hopes and *a lofty ambition; but how am I sunk!* Oh! my friend

[Walton], if you had known me as I once was, you would not recognize me in this state of *degradation*. *Despondency* rarely visited my heart; a high destiny seemed to bear me on, *until I fell, never, never again to rise*. [Emphasis added] (F, 147)

The terms of this confession outline Mary Shelley's conception of the Fall of Satan and Adam, as well as that of Icarus and Phaethon. Some critics also read the novel positively, as the disasters in *Frankenstein* serve as an admonishment to scientists about those potential perils of scientific experiments and ambition.²⁶ Joseph points out that Mary Shelley creates 'a lasting symbol of the peril of scientific Prometheanism' ('JFI', xiii). The key to the novel resides in a recasting of the materialist worldview to incorporate the immateriality of emotion and thought, which helped to shape the fabric of Mary Shelley's vision in *Frankenstein*.

II. The Changing Concept of the Mind in the Enlightenment

With the advances of eighteenth-century medicine, science, and technology, Mary Shelley aims to disclose the shortcomings of a materialist perspective through her depiction of Frankenstein's pursuit of science. Concerned with issues of the body and the mind, as well as physical and emotional desire, Enlightenment philosophy also relates to classical Greek philosophy. Philosophers in the eighteenth century meditated on the issues of the functions of the body. Zoologists provided contributions to these discoveries and invited comparisons

between animals, humans, and machines. British and French philosophers attempted to discover the mechanism of the human body and mind. In spite of Shelley's dissatisfaction with contemporary materialism, such materialist assertions also form part of the Shelley circle's fundamental way of understanding the world and human existence. This acceptance of, and resistance to, materialism informs Mary Shelley's meditation on materialism in *Frankenstein*.

In *Frankenstein*, the motif of freedom, inherited from Epicurean thinking, is explicit as freedom is the guarantor of happiness in the view of many eighteenth-century philosophers. Mary Shelley creates scenarios for her characters in *Frankenstein* to enable them to dramatise different forms of freedom. For example, Walton launches his whaling business and expeditions to the poles partly because of his ambition to be prosperous and partly because of his enthusiasm to explore the unknown in both his own life and the geographical world.²⁷ Such geographical freedom can be associated with Columbus's voyage of 1492, in the Age of Discovery, whose pioneering spirit persists to our present-day in the form of our explorations of outer space. Dependent on Epicurean assertion – and later the Enlightenment motto, 'Sapere aude' (literally meaning 'dare to know') from Kant²⁸ – Frankenstein's enthusiasm for scientific freedom reflects natural philosophers' conviction to break free from Christian dogmatism. In *Frankenstein*, the creation of a perfect human being, as Frankenstein claims, represents a bid for scientific freedom. Scientific knowledge enables Frankenstein to

challenge the boundaries of the unknown in nature and to break through the limitations of knowledge. Greatly influenced by M. Waldman and his modern chemistry at Ingolstadt, Frankenstein learns of the advances of techno-science, including the invention of the microscope, the discoveries of blood circulation, as well as air composition and the command of thunders (electricity), all of which enable his scientific contemporaries to ‘penetrate into the recesses of nature, and shew how she works in her hiding places’ (*F*, 28).²⁹ In the view of Frankenstein or other Enlightenment naturalists, Christian creation never took place: the origin of life is a question open to scientific experiment.

Epitomising the Shelley circle’s philosophy, *Frankenstein* is Mary Shelley’s attempt to subvert a Christian worldview through re-imagining the myth of the biblical genesis. The comparison between the organic body and the machine did not directly emerge with Descartes’s assertion about the mechanism of animals. In order to consolidate the Christian worldview, Descartes (1596-1650), like other early natural philosophers, refrained from making an explicit connection between humans and machines. Instead Descartes claimed that a human’s ‘soul’ or ‘spirit’ originates from God’s creation. In his *Treatise on Man*, Descartes argued that ‘I suppose the body to be just a statue or a machine made of earth which God forms with the explicit intention of making it as much as possible like us.... [He] also places inside it all the parts needed to make it walk, eat, breathe, and imitate’ as many things as we can.³⁰ Descartes’s binary opposition between the body and the soul (or the mind) took up the

concept of Plato's 'immortality of the soul' and placed it within a system of theological values. The rise of machines and body-related automata provided natural philosophers, particularly the physiologists, with an opportunity to examine the differences and similarities between the organic body and the machine. Frankenstein's Monster is a classic 'representation' of such a mechanistic concept.

Humans were metaphorically conceived of as machines throughout the eighteenth century. In his *Machine Man* (1748) and *Treatise on the Soul* (1750), La Mettrie boldly denies the immortality of the soul and stresses the mechanism of humans.³¹ According to Seamus Deane, Shelley is more deeply influenced by 'the French Enlightenment' – in the wake of the French Revolution and materialism – and La Mettrie's materialist philosophy, than any other 'English writer of the period 1789-1832'.³² It is inevitable that Shelley's radicalism is embedded in *Frankenstein*. La Mettrie to some extent is Descartes's follower, but La Mettrie's idea of the 'human machine' subverts the assumption of Cartesian dualism, which champions the 'immortality of the soul'. Automata, regarded as early robots, were very mechanical and 'soulless' and easily differentiated from humans. In spite of the fact that he is defined as an artificial man, Mary Shelley's monster is presented as, essentially, possessing a 'soul', or some other form of intelligence.

La Mettrie's 'human machine' relates directly to the Monster's creation. Echoing Descartes's 'animal machine', La Mettrie provides a more specific concept of the body as

‘human machine’. In *Machine Man*, La Mettrie argues that ‘[t]he human body is a machine which winds itself up, a living picture of perpetual motion’ (*MMOW*, 7). This mechanism in philosophy dates back to Thomas Hobbes (1588-1679). Hobbes’s universal mechanism is depicted in his *Leviathan* (1651), where Hobbes explains the universe and the human body in terms of mechanical laws.³³ Such mechanism in physics particularly relates to the mechanical laws of motion, formulated by Newton. La Mettrie’s concept of ‘human machine’ is indebted to Descartes’s ‘animal machine’ and his interpretation of the mechanism of the human body. Nonetheless, La Mettrie attempts to attack the Christian myth of creation and blur the differences between humans and animals. Conflicts between metaphysics and materialism arise again. Cartesians, following Descartes’s philosophy and even Plato’s earlier dualism, believed in the immortality of the soul and, at the same time, evaded the animal nature of humans and the mechanical principles of the human soul. Descartes especially separates humans from animals. Like La Mettrie’s assertion of human machines, Descartes also affirms the mechanism of the human body, but he believes that the immortal soul, created by God, provides a force at work on the body. In *Treatise on Man*, Descartes argues from a perspective of theological physiology:

... God so disposed these *tidy fibres* [in the brain] that the passages He left between them are able *to conduct the spirits*, when these are moved by a particular action, toward *nerves which allow in this machine just those movements*

that a similar action could incite in us when we follow our natural instinct.

[Emphasis added] (WOW, 169)

Descartes claims that the brain is a machine even if the soul, for Cartesians and later vitalists, is God given. K. T. Maslin interprets Descartes's philosophy on the difference between humans and animals in the following ways:

Only human beings have souls, Descartes maintained, and thus *animals have neither thought nor consciousness*. *Animals*, or the brutes, as Descartes sometimes referred to them, should be regarded as *automata*, albeit machines that are 'incomparably better arranged, and adequate to movements more admirable than is any machine of human invention'. The last part of this remark makes it clear that Descartes thinks that *it is impossible that we should be inflicting suffering on animals when we kill and eat them, because we would be doing these things merely to non-conscious machines*, and hence we would be *no more guilty of inflicting ill-treatment* than we are when we send a *car* to the scrapheap. [Emphasis added]³⁴

Descartes discovers two major reasons for distinguishing between humans and animals: language and creativity (IPM, 44-45). Mary Shelley provides the reader with a number of physiological descriptions of the mechanism of the body. Ironically, even though Frankenstein's monster possesses both language and creativity, its monstrous body is never

treated as human, but as a horrific and horrifying animal. Without any understanding of the Monster's intelligence and humane 'soul', those who observe the Monster tend either to attack him or run away. The Monster was created of an unusually gigantic stature of 'about eight feet in height' (*F*, 32) and this preternatural physique serves only to alienate Frankenstein's creation further from society. In Chapter 3 of Volume 2 in *Frankenstein* (*F*, 70), the response of an old man and later other villagers to the Monster's beast-like appearance demonstrate the differences between humans and non-humans. Kind-hearted Felix, as the Monster had thought previously, 'dashed me [the Monster] to the ground and struck me violently with a stick' when he saw him with the old De Lacey (*F*, 91). Frankenstein's innocent brother, William, regards the Monster as no more than an animal – a man-eating 'ogre' (*F*, 96).

The mechanism of the human body is thoroughly demonstrated in *Frankenstein*. In the beginning, Walton's sailors mechanically pilot the whaling ship. When the crew rescue Frankenstein from the icy wastes, Walton uses brandy to keep him warm and provide him with nutrition. Given Frankenstein's perilous situation, warmth, fresh air (oxygen), and food are the three vital factors for his survival. In his fourth letter to his sister, Margaret Saville, in Volume 1, Walton describes Frankenstein's physical condition:

His *limbs* were nearly *frozen*, and *his body dreadfully emaciated by fatigue and suffering*. I never saw a man in so wretched a condition. We attempted to carry

him into the cabin; but as soon as he had quitted the *fresh air*, he *fainted*. We accordingly brought him back *to the deck*, and *restored him to animation by rubbing him with brandy*, and *forcing him to swallow a small quantity*. As soon as he shewed *signs of life*, we *wrapped him up in blankets*, and *placed him near the chimney of the kitchen-stove*. By slow degrees he recovered, and *ate a little soup*, which restored him wonderfully. [Emphasis added] (*F*, 14)

This passage demonstrates the mechanical body as well as those changes in vitality or ‘signs of life’ (*F*, 14). Such first-aid skills are common sense and based on empirical experience.

However, such empirical experience results in understanding the human body as a mechanism. In other words, ‘brandy’ (*F*, 14) penetrates into his skin and the alcohol speeds up the circulation of blood and helps to warm the body. ‘Rubbing’ with brandy and ‘forcing him [Frankenstein] to swallow a small quantity’ (*F*, 14), as Walton applies, makes the alcohol penetrate faster. The blood transfers nutrition and oxygen to the cells. Walton may not have knowledge of the blood circulatory theories of William Harvey (1578-1657), but this scientific theory is alluded to by Frankenstein, when he comments that: ‘... they [natural philosophers or scientists] have discovered how the blood circulates, and the nature of the air we breathe’ (*F*, 28). Oxygen was extracted from the air in England in 1774 and in Sweden in 1775, where it was discovered by German-Swedish chemist Carl Wilhelm Scheele (1742-1786) and the British theologian Joseph Priestley (1733-1804).³⁵ As a ‘materialist’ who was a

theologian and metaphysician, allied with Coleridge's vitalist camp, Priestley argues that animals become increasingly active when they are given more oxygen. Oxygen becomes the fire of life; Scheele called this gas 'fire air' ('DO', 718). The third vital factor for life that Walton identifies is seen when he provides Frankenstein with food: '[Frankenstein] ate a little soup, which restored him wonderfully' (*F*, 14). A little liquid food supplies nutrition to the weak patient.

La Mettrie notices the common relationship between food and the mechanical body and reaffirms these notions in his idea of the 'human machine'. In *Machine Man*, he observes that soldiers went mad without enough nutrition and again emphasises: 'Food maintains what is aroused by fever. Without it, the soul languishes, becomes furious and dies dejected' (*MMOW*, 7). In *Frankenstein*, the Monster experiences numberless physical sufferings and these disturb his relationship with the environment. The Monster says: 'I was oppressed by fatigue and hunger, and far too unhappy to enjoy the gentle breezes of evening, or the prospect of the sun setting behind the stupendous mountains of Jura' (*F*, 96). Such physical sufferings, particularly due to lack of food, are also seen in the De Lacey family. In the beginning, the Monster is envious of the condition enjoyed by the De Lacey family until he notices their lack of food:

"They were not entirely happy.... They possessed a delightful house (for such it was in my eyes), and every luxury; they had a fire to warm them when chill,

and delicious viands when *hungry*; they were dressed in excellent clothes; and, still more, they enjoyed one another's company and speech, interchanging each day looks of affection and kindness. What did their tears imply? Did they really express pain? I was at first unable to solve these questions; but perpetual attention, and time, explained to me many appearances which were at first enigmatic.

“A considerable period elapsed before I discovered one of the causes of the uneasiness of this amiable family; it was *poverty*: and they suffered that *evil* in a very distressing degree. Their *nourishment* consisted entirely of the *vegetables* of their garden, and the *milk* of one cow, who (sic) gave *very little* during the winter, when its masters could scarcely procure *food* to support it. They often, I believe, suffered the pangs of *hunger* very poignantly, especially the two younger cottagers; for several times they placed *food* before the old man, when they reserved *none* for themselves. [Emphasis added] (*F*, 74)

Obviously, the De Lacey family enjoy air (oxygen) and warmth, but lack the third vital factor – food. The Monster recognises that ‘poverty’ is an ‘evil’ (*F*, 74), that the lack of food tortures the human body and mind. In other words, Mary Shelley tends to depict the harsh conditions of human existence from a mechanical view of the body and the significance of material substance.

In addition to the mechanism of the body, the mind that La Mettrie speculated about provides an important connection with current brain studies. Ann Thomson points out that ‘[r]ecently, interest in La Mettrie’s works has been aroused, including among those studying brain functioning, but attention still tends to be paid mainly to *Machine Man*’ (MMOW, x).

La Mettrie was indebted to early philosophy, including Greek materialism and Lockean empiricism, but most of his insights were directly derived from his medical observations. As a military surgeon, La Mettrie obtained a wide range of evidence from patients’ diseases and his philosophical understanding of the mind. Unlike Descartes’s theological view on the discussion of human machines, La Mettrie’s precursors, such as Pierre Gassendi (1592-1655), Thomas Willis (1621-1675), and Guillaume Lamy (1644-1683), had already consigned the soul to a corporeal prison of materialism.³⁶ Nevertheless, early Greek Epicureans provided a primary hypothesis of the corporeality of the soul. Against Descartes and early dualistic philosophers, La Mettrie openly denied the immortality of the human soul. In his *Treatise on the Soul*,³⁷ La Mettrie attempts to avoid complicated philosophical debates when he states his physiological observations on the soul or the mind in connection with the body:

You can see that, in order to explain the union of the soul with the body, there is no need to torture one’s mind as much as those great geniuses *Aristotle, Plato, Descartes, Malebranche, Leibniz, and Stahl* did, and that it is enough to keep going in a straight line and not look behind or to the side when the truth is in

front of one. But there are people who have so many prejudices that they would not even bend down to pick up the truth if they found it where they did not want it to be.

... [S]ince *diseases of the brain*, according to the place they attack, destroy sometimes one sense and sometimes another, are those who place *the seat of the soul* in one of the pairs of optic lobes any more wrong than those who would like to limit it to the oval centre, the corpus callosum or even the pineal gland?

[Emphasis added] (*MMOW*, 64-65)

La Mettrie disputes Cartesian dualism and argues that ‘diseases of the brain’ (*MMOW*, 64) affect human sensations as well as the function of the ‘soul’. Descartes originally applied the concept of mechanism to the discussion of the physiological structure of animals and humans to develop his own theological dualism of the human body and the incorporeal soul.

Self-discovery is one of the key philosophical messages in *Frankenstein*. In a sense, the major characters in *Frankenstein* crystallise this secular pursuit of self-exploration by the Shelley circle. Self-explorations of a brave new atheistic world present new philosophical challenges to Walton, Frankenstein, Henry Clerval, and the Monster. According to M. K. Joseph, Walton, Frankenstein, and the Monster represent ‘three concentric layers’ from ‘the outermost layer’ to ‘the very centre’.³⁸ Despite Joseph’s clear-cut classifications of narrative structure in *Frankenstein*, the issues of materialism and human emotions permeate Mary

Shelley's novel and dismantle the boundaries between these narrative 'layers'. The concept of the mechanism of the body and the mind is vital to *Frankenstein*, exemplified in both the creation of the Monster and its cognitive development. Frankenstein is fascinated by 'the structure of the human frame' and 'the principle of life' and attempts to 'besto[w] animation upon lifeless matter' (F, 30). For Frankenstein, 'the apparition of a spirit' is simply 'a tale of superstition' (F, 30). As a result, life does not consist of any kind of invisible substance – such as the 'immortal soul' – but can be explained by natural philosophy. After his birth, the Monster's mind or cognitive development resembles an artificial intelligence or a robot. His brain is like a programmed and integrated circuit, accumulating information through numberless sensory inputs from the environment. With the advances of Internet technologies, information processing among networks can be seen as analogous to those processes of human cognition. More precisely, the individual can be seen as a terminal and messages from the outer world can only be garnered via the Internet or network. The Monster describes his own experience and finds: 'My *sensations* had, by this time, become distinct, and *my mind* [working brain] received every day additional *ideas*. My *eyes* became accustomed to the *light*, and to perceive *objects* in their right forms; I *distinguished* the insect from the herb, and, by degrees, one herb from another' (F, 69). It is clear that the Monster's mind is constructed as, or at least compared with, a kind of 'flexible' mechanism or artificial intelligence. Newton's understanding of the mechanical world is the foundation of the 'science of man' or study of

the mind. As Peter Gay reminds us, there is an affinity between Newton's physics and Enlightenment 'psychology', because 'Newton's influence on psychology was implicit, though obvious'.³⁹ In this sense, *Frankenstein* leads to the physicality of the mind or physiological/psychological explanation of its operations.

Frankensteinian scientific myth derived from eighteenth-century materialist philosophy of the body and the mind. La Mettrie's contemporaries, for example Hartley and Condillac, adhered to Lockean empiricism and strived to construct a materialist view of the mind.⁴⁰ The corporeal mind understood as the brain is regarded as a physical force to control the mechanical operation of the body. The scientific influence of the artificial man in *Frankenstein* is specifically associated with Hartley's *Observations on Man, His Frame, His Duty, and His Expectations* (1749) and Condillac's statue in the *Treatise on the Sensations* (1754).⁴¹ That Shelley bought Hartley's *Observations* in 1812, according to Thomas Jefferson Hogg,⁴² suggests that Mary Shelley's ideas in *Frankenstein* were also influenced by Hartley. Mary Shelley's understanding of Condillac's statue derives from Shelley's reading of 'Diderot's works' (the *Lettre sur les sourds et muets*, the *Tableau de Famille*).⁴³ This evidence has encouraged critics to connect Hartley's 'new science' with Condillac's empiricist materialism and Mary Shelley's imagining of artificial humans.

The inquiries of the mechanism of the body made by Hartley, Condillac, or La Mettrie are far removed from the anatomy of a dead body. Instead, they attempt to employ a

materialist perspective to examine human nature. Influenced by Newton and Locke, the British ‘materialist’ Hartley⁴⁴ developed ‘his physiological psychology’, through the theory of vibrations, in which he likened the vibrations of the nerves ‘among the medullary particles’ to sensations, and developed further ‘the theory of associations [to] explain the construction of simple sensations into man’s total experience’ (*EISF*, 181-82). Indebted to Greek atomism and Descartes’s study of the brain, Hartley’s theory of particles became the forerunner of current neuroscience. This atomist concept, related to particles, intrigued more eighteenth-century British philosophers. In his ‘Of the Standard of Taste’ (1757), Hume emphasises the materiality of the mind and emotions. ‘Those finer emotions of the mind’, for Hume, work like ‘small springs’ in the machine.⁴⁵ This is like other contemporaries. For example, Thomas Reid, in *An Inquiry into the Human Mind* (1764), explains the physical mechanism of the mind: ‘All that we know of the body, is owing to anatomical dissection and observation, and it must be by an anatomy of the mind that we can discover its powers and principles’.⁴⁶

In *Frankenstein*, such vibrations of the nerves do not occur until the Monster experiences sensory stimuli in the forest. As soon as the Monster’s brain is activated, his nervous vibrations lead him to learn of the physical world:

“It is with considerable difficulty that I remember the original æra (sic) of my *being*: all the events of that period appear confused and indistinct. A strange

multiplicity of sensations seized me, and I saw, felt, heard, and smelt, at the same time; and it was, indeed, a long time before I learned to distinguish between the operations of my various senses. By degrees, I remember, a stronger light pressed upon my nerves, so that I was obliged to shut my eyes. [Emphasis added]

(F, 68)

The Monster's mind is depicted in very material terms and the construction of his worldview cannot avoid operating according to materialist rules, as the Monster reacts based on reflex principles: '... a stronger light pressed upon my [his] nerves, so that I was obliged to shut my eyes' (F, 68). All of the Monster's ideas or mental reflections during the time of his language acquisition 'with' the De Lacey family and through reading Milton's *Paradise Lost*, a volume of Plutarch's *Lives*, and Goethe's *The Sorrows of Werter*,⁴⁷ are rooted in a complicated form of mechanism. Interestingly, these attendant issues and the science of the mind have recently attained prominence in literary criticism. Current neuro-imaging technologies, like fMRI (functional magnetic resonance imaging) and PET (positron emission tomography), locate the affinity of language and the brain and give more concrete evidence in support of early materialists' hypotheses about the materiality of the mind. Alan Richardson, in his *British Romanticism and the Science of the Mind* (2001) and in his later work, *The Neural Sublime: Cognitive Theories and Romantic Texts* (2010), relates mental science or neuroscience to Romanticism. Richardson's materialism-based mind inquiries about the late eighteenth and

early nineteenth century associate Romantic texts with neuroscience. Revisiting Lockean empiricism, Nancy Yousef draws on Condillac's empiricist philosophy and Rousseau's natural man to interpret Romantic literature, for example Wordsworth's *The Prelude* and Mary Shelley's *Frankenstein*.⁴⁸ However, *Frankenstein* is read here as incorporating the empiricist materialism of Hartley, Condillac, and Hume into a Romantic discourse.

Condillac's empiricist philosophy of the living statue further reflects the Monster's mechanical body and mind. Condillac's statue, similar to Pygmalion's statue, adds another materialist dimension to the discussion of Frankenstein's artificial man – the Monster.

Pygmalion's statue, however, wakes up because of the goddess Venus's magic.⁴⁹ The statue in Condillac's *Treatise on the Sensations* (1754) increasingly experiences the physical world through the sense of touch. In Chapter 7 of his *Treatise on the Sensations*, Condillac discusses the 1694 case of a feral boy 'living in the forests on the frontiers separating Lithuania and Russia'.⁵⁰ This example provides Condillac with sufficient evidence for the centrality of sensations to our experience of the world, as well as proof of cognitive development of his statue. Condillac makes a comparison between the statue and the child, who lived among bears in the forests of Lithuania, and argues that without imitations of 'human' behaviour the statue and the animal-like child can only lead an animal life, 'in a search for food' (*TS*, 225).

Such innocence untainted by human 'civilisations' is similar to the Monster's early life.

The Monster, like Condillac's walking statue, learns of the world through sensory experience and a trial-and-error process. In Chapter 3 of Volume 2 in *Frankenstein*, the Monster's experience on earth is identical to the statue and the 'bear boy'. The only task the Monster has to perform is to collect food for survival. The Monster recalls that 'I lay by the side of a brook resting from my fatigue, until I felt tormented by *hunger* and *thirst*' [emphasis added] (*F*, 68). The Monster, like any other animal or human, is no doubt a machine. Food is to him what a battery is to a machine or petrol to a car. In terms of Mary Shelley's revised concept of materialism, the Monster is an intelligent machine. More concisely, Condillac's statue reflects a mechanical body – a non-organic body – with intelligence through which the cognitive developments of the Monster become more understandable.

Pygmalion's ivory statue in Ovid's *Metamorphoses* (a work with which Mary Shelley was evidently familiar according to her journal entry of spring 1815)⁵¹ is a prototype of Condillac's statue and the model for Frankenstein's creation. The figure of the Monster is so horrific to Frankenstein that he escapes from his laboratory without displaying any kindly emotions towards his 'perfect' creature. Before his escape, Frankenstein describes his aspiration to create the 'perfect' creature:

His limbs were in proportion, and I had selected his features as beautiful.

Beautiful! – Great God! His yellow skin scarcely covered the work of muscles and arteries beneath; his hair was of lustrous black, and flowing; his teeth of a

pearly whiteness.... (F, 34)

Mary Shelley wittily integrates Condillac's 'cognitive science' with ancient myth. In Pygmalion's myth, the couple fall in love with each other and live happily ever after. In *Frankenstein's* plot, the 'couple' (Frankenstein and the Monster) become enemies and the story ends in tragedy. On this view, the homosexual or simply male chauvinistic desire in science to create a man instead of a woman differs from Pygmalion's desire for a perfect wife:

When Pygmalion saw these women, living such wicked lives, he was revolted by the many faults which nature has *implanted* in the female sex, and long lived a bachelor existence, without any wife to share his home. But meanwhile, with marvelous artistry, he skillfully carved a snowy ivory statue. He made it lovelier than any woman born, and fell in love with his own creation. The statue had all the appearance of a real girl, so that it seemed to be alive, to want to move, did not modesty forbid. So cleverly did his art conceal its art. Pygmalion gazed in wonder, and in his heart there rose a passionate love for this image of a human form. [Emphasis added] (MO, 231)

In contrast to these women's innate 'nature[s]', Pygmalion's ivory statue is based on a Lockean hypothesis of *tabula rasa* as represented by Condillac's statue and Frankenstein's Monster. Anticipating the built-in memory of a robot (which consists of sophisticated RAM chips that enable it to 'learn' by means of sensors),⁵² the mind of the statue or Monster

develops through its increased interactions with the environment.

Apart from this statue creation myth, the body of Frankenstein's monster also draws on empiricist materialism. Imbued with a contemporary philosophy of science, *Frankenstein* also seems to interact with some other important philosophical and literary texts that Mary Shelley read between 1815 and 1816 as the foundation of its scientific concerns.⁵³ Shelley's own understanding of Lockean empiricism and the life principle influenced *Frankenstein*. In addition to the creation of the Monster, the unfinished body of the female monster again gives further evidence of this analogy between mechanical and bodily parts. In order not to be cursed by future generations, Frankenstein destroys the female creation by tearing it 'to pieces' (*F*, 114):

Had I a right, for my own benefit, to inflict this curse upon everlasting generations? ... I shuddered to think that future ages might curse me as their pest, whose selfishness had not hesitated to buy its own peace at the price perhaps of the existence of the whole human race. (*F*, 114-15)

Frankenstein regards the body as a machine and its galvanic ignition is the origin of vitality.

The destruction of the body through a murderous act is the destructive means to cease 'life'.

In *Frankenstein*, the creation and development of the Monster embodies not only Condillac's empiricist views, but Hartley's theory of vibrations among the nerves. Mary Shelley employs physiological terms, for example senses and nerves, in support of a materialist view. The

article ‘Of Cannibals’ in Michel Montaigne’s *Essays* (1580) and Jean-Jacques Rousseau’s *Emile; or, On Education* (1762), which Mary Shelley read, provided her with further ideas to depict the Monster’s natural development.⁵⁴ The image of the Monster can be compared with Condillac’s Lockean analysis of the ‘bear boy’. Like the analysis of the bear boy, Rousseau’s primitivist assertion of the ‘noble savage’ or the ‘natural man’ is mirrored in the case of the Monster. Mary Shelley’s novel reassesses the changing mode of human cognition through re-imagining the workings of the mind and emotion from a mechanistic worldview. In this reading, *Frankenstein* emerges as a complex conduit for a number of important Enlightenment philosophical and scientific inquiries about the mind and the body.

III. The Birth of ‘New’ Materialism in Romanticism

The birth of the Monster, Mary Shelley suggests, announces an atheistic materialism. Despite a legacy reaching back to ancient Greek philosophy, the materialist discourse in *Frankenstein* originated with the critical debates between John Abernethy’s vitalism and William Lawrence’s materialism.⁵⁵ These great debates between theists and physicists⁵⁶ were recently re-explored at a seminar, entitled ‘God or Blind Nature? Philosophers Debate the Evidence’ (2007-2008), at the Infidels forum.⁵⁷

Humphry Davy (1778-1829) provides an important connection between the vitalist debates and Mary Shelley’s *Frankenstein*.⁵⁸ As a member of the Godwin circle, Davy was

regarded as a materialist due to his advocacy of the chemistry of life. Suffering from academic pressure from his peers, Davy was later converted to vitalism as a result of admonishments from the vitalist Coleridge.⁵⁹ Despite his ambivalent position in the vitalist debates, Davy emphasises the importance of science and scientific reasoning. He notes that ‘in the progression of knowledge, observation, guided by analogy, leads to experiment, and analogy confirmed by experiment, becomes scientific truth’ (qtd. in *SAMSF* 66). As a result, the motif of freedom in *Frankenstein* echoes the secular worldview of Epicureans.

Davy also introduced the Shelleys to the science of chemistry and electricity. The influence of Davy is evident in *Frankenstein* and over-shadows this novel. After ‘a most violent and terrible thunder-storm’ (*F*, 22), Frankenstein’s father (with echoes here of Godwin, Shelley’s spiritual father) took him to ‘attend a course of lectures upon natural philosophy’ (*F*, 23):

The professor discoursed with the greatest fluency of potassium and boron, of sulphates and oxyds, [chemical] terms to which I could affix no idea; and I became disgusted with the science of natural philosophy, although I still read Pliny and Buffon with delight, authors, in my estimation, of nearly equal interest and utility. (*F*, 23)

In *Frankenstein*, this ‘professor’ (*F*, 23), who excelled in modern chemistry, is a possible allusion to Davy. Davy was a professor of chemistry when Shelley was a ‘man of science’ in

London. Shelley did not meet Davy, but Mary Shelley was taken by Godwin to attend Davy's lectures on 'modern' chemistry in 1812.⁶⁰ The Shelleys knew of Davy's science and philosophy through reading Davy's *Elements of Chemical Philosophy* (1812) from 28 October 1816 to 4 November 1816.⁶¹ In his *Contributions to Physical and Medical Knowledge* (1799), Davy followed Priestley's research in chemistry and regarded 'phosxygen' (oxygen) as the vital thing for 'organic beings' (qtd. in SV 37). Godwin's criticism of Davy's chemistry may have influenced Mary Shelley's idea of duality in *Frankenstein*. Though defended by his poet friend, Coleridge, Davy's chemistry is limited, as Godwin complained: '[Davy] would "degrade his vast Talents" by limiting them to chemistry' (AW, 267). This degradation of Davy's chemistry echoes Frankenstein's remarks about his professor: '... I became disgusted with the science of natural philosophy [chemistry]...' (F, 23). In the 1831 version of *Frankenstein*, Mary Shelley includes references to Davy's ideas about 'electricity and galvanism' (HF, 43):

Before this [the most fearful thunderstorm] I was not unacquainted with the more obvious *law of electricity*. On this occasion *a man of great research in natural philosophy* was with us, and, excited by this catastrophe, he entered on the explanation of a theory which *he had formed on the subject of electricity and galvanism*, which was at once new and astonishing to me. [Emphasis added] (HF, 42-43)⁶²

This echoes Davy's Lectures on Chemistry in 1802. Davy mentioned electricity and galvanic experiment in his 'A Discourse, Introductory to a Course of Lectures on Chemistry' (1802):

... *the phænomena of electricity* have been developed; *the lightnings* have been taken from the cloud; and, lastly, a new influence has been discovered, which has enabled man to produce from *combinations of dead matter effects* which were formerly occasioned only by animal organs. [Emphasis added]⁶³

The assembled body of the Monster is grounded in a materialist worldview. In the 1831 Introduction to *Frankenstein*, Mary Shelley suggests that 'perhaps the component parts of a creature might be manufactured, brought together, and endued with vital warmth' (*HF*, 8). In the novel, Frankenstein regards the human body as a machine and, therefore, collects 'materials' from a churchyard and a slaughterhouse so as to 'assemble' a perfect human being. To Frankenstein, body parts are like machine parts: 'The dissecting room and the slaughterhouse furnished many of my materials ...' (*F*, 32). This mechanical science, for Frankenstein, would, he hoped, lead to success:

... my operations might be incessantly baffled, and at last my work be imperfect: yet, when I considered the improvement which every day takes place in *science and mechanics*, I was encouraged to hope my present attempts would at least lay the foundations of future success. [Emphasis added] (*F*, 31)

For that reason, he attempts to understand the 'intricacies of fibres, muscles, and veins' (*F*, 31)

and ‘renew life where death had apparently devoted the body to corruption’ (*F*, 32). In order to make his ‘first success’, Frankenstein eventually resolved to create a preternaturally large creature (*F*, 32). Physiologically, Frankenstein’s creation is based on the concept of mechanism. Exploring the unknown is thrilling to the scientific mind despite its potential perils. Frankenstein states his enthusiasm for discovery and science: ‘In other studies you go as far as others have gone before you, and there is nothing more to know; but in a scientific pursuit there is continual food for discovery and wonder’ (*F*, 29). Without ‘moral’ or ethical concerns, Frankenstein aims to transcend human limitations. Materialist values are the only way to encourage him in creation or re-animation. Frankenstein’s case is a striking example. Frankenstein forces himself to ‘spend days and nights in vaults and charnel houses’ in order to ‘examine the cause and progress of this decay’ (*F*, 30). Natural philosophy, including physiology and anatomy, provides him with scientific knowledge to understand the human frame. A body without life is like a machine without fuel or electricity. Even so, the living organism is more mysterious and complicated. Like Aldini’s galvanic experiment, aimed at imbuing life into a lifeless body, Frankenstein’s theory of creation apparently questions an entirely mechanical view of the human body.

Distinct from the first-generation Romantics (Wordsworth, Coleridge, and Robert Southey), the Shelley circle more openly disputed religious and political conservatism. For example, Southey was admired by the younger Shelley, but was eventually ridiculed by the

aspiring poet for his political and religious conservatism in later years. After his visit to Southey at Keswick, the Lake District, in late December of 1811, Shelley complained to Elizabeth Hitchener about Southey's bigotry.⁶⁴ The second-generation Romantics expressed great opposition to Wordsworth, particularly to *The Excursion* (1814), for the poem 'aspires to permanence in a traditional, institutional, orthodox Christian vein' and opposed 'innovatory Voltairean France'.⁶⁵ On 14 September 1814 Shelley, according to Mary Shelley, observed that Wordsworth was enslaved to his own religious view when he read part of Wordsworth's *The Excursion*: 'Shelley calls on Hookham and brings home Wordsworths Excursion (sic), of which we read a part—much disappointed. He is a slave'.⁶⁶ Mary Shelley read it in the following two days.⁶⁷ This disappointment in Wordsworth was later suggested in Shelley's 'To Wordsworth', which speaks suggestively of Wordsworth's defection from 'truth and liberty' (12): 'In honoured poverty thy voice did weave / Songs consecrate to truth and liberty,— / Deserting these, thou leavest me to grieve, / Thus having been, that thou shouldst cease to be' (11-14).⁶⁸

A rejection of orthodox religious views is evident in the idealistic and secular pursuits of intimate relationships reflected in *Frankenstein*. The pursuits of Robert Walton, Frankenstein, and the Monster all represent non-religious philanthropy. Walton's affection for Frankenstein is because '[h]e is so gentle, yet so wise; his mind is so cultivated, and when he speaks ... [his words] flow with rapidity and unparalleled eloquence' (*F*, 15-16). Walton

points to his own idealism in friendship: ‘One day I mentioned to him [Frankenstein] the desire I had always felt of finding a friend who might sympathize with me, and direct me by his counsel’ (*F*, 16). Nevertheless, their idealism in the quest for happiness eventually returns them to the same destructive ground. The issue of happiness and its pursuit links these two generations of Romantic writers regardless of their conflicting materialist and religious worldviews.

With the rise of anatomy and physiology, the human body appealed to natural philosophers and their quest to unearth the ‘soul’ from the body. Shelley’s *Queen Mab* hints at the possible lethal dangers of an atheistic perspective in a Christian society: ‘I [the Spirit] was an infant when my mother went / To see an atheist burned...’ (VII.1-2).⁶⁹ In his earlier arguments in *The Necessity of Atheism* (1814), Shelley seems simply to have expounded his connection with atheism and materialism. As a follower of Humean scepticism, Drummond emphasised the significance of the human mind and ‘combated the arguments of the materialist’.⁷⁰ The young Shelley, however, expressed his dislike of Drummond’s religious philosophy when he wrote to Thomas Hookman on 26 January 1813: ‘I do not think that Sir W. Drummonds (sic) argument have much weight. His *Ædipus* has completely failed in making me a convert’ (*CWPBS* Vol. 9, *Letters*, 201, 42). In the Preface to *Frankenstein* and in ‘On *Frankenstein*’, Shelley also affirms the significance of the human mind throughout Mary Shelley’s *Frankenstein*.⁷¹

Mary Shelley is inevitably influenced by Shelley's scepticism and atheism as expressed in his early philosophy in *Zastrozzi* (1810), *The Necessity of Atheism* (1811), *Queen Mab* (1813), and *A Refutation of Deism* (1814). Reflecting on Christianity in his 'Essay on Christianity' (1815), Shelley starts, however, to make a connection between all schools of philosophy and their respective theories of the human mind:

The thoughts which the word 'God' suggests to the human mind are susceptible of as many variations as human minds themselves. *The Stoic, the Platonist, and the Epicurean, the Polytheist, the Dualist, and the Trinitarians*, differ infinitely in their conceptions of its meaning. They agree only in considering it the most awful and most venerable of names, as a common term devised to express all of mystery, or majesty, or power, which the *invisible world* contains. [Emphasis added]⁷²

This 'invisible world' in Shelley's eyes belongs to God, the human mind, and may even be extended to the workings of the brain. The untouched aspect of the human mind is reflected in Shelley's poetry and Mary Shelley's *Frankenstein*. The Shelleys notice the insufficiency of modern materialism and strive to comprehend the invisible substance in the mind or brain that dominates human thought and feelings. Shelley further complains that '[t]his materialism is a seducing system to young and superficial minds [and] ... allows its disciples to talk and dispenses them from thinking' ('OL', 506). Here Shelley attempts to ascribe the significance

of poetry and the self a meaning that resides somewhere beyond matter. Shelley recognises the inadequacy of contemporary materialism as does *Frankenstein*. Facing the failure of his creation, Frankenstein exclaims: 'The different accidents of life are not so changeable as the feelings of human nature' (*F*, 34). These 'feelings of human nature' suggest that the concept of emotion is conceived of as an attribute of the mind. It is in these terms that Frankenstein confesses to Walton his ambition for scientific research:

Learn from me, if not by my precepts, at least by my example, how dangerous is the acquirement of knowledge, and how much happier that man is who believes his native town to be the world, than he who aspires to become greater than his nature will allow. (*F*, 31)

In this respect, the intangible mind remained an unexplored area that early philosophers and Mary Shelley, like Frankenstein, were eager to study. *Frankenstein* plays an important role in bridging the gulf between machines and organisms by developing a revised account of materialism. The creation of the Monster announces the birth of an organic machine. By definition, the organism and the machine are polar extremes. Coleridge's organic theory, which was conveyed to the Shelleys through their readings of his works, stressed the significance of the mind or imagination within a living being as a refutation to 'lifeless mechanism'. James Engell draws a comparison between Coleridge's philosophy and Locke's, stating that '[t]he emphasis for Coleridge was to "make the senses out of the mind—not the

mind out of the senses, as Locke did””.⁷³ Coleridge’s claim is misleading. In Hartley’s theory of ‘physiological psychology’, the mind works within and through the brain. Coleridge’s abhorrence to materialism was detected in his later attitude towards Hartley and later inclination towards Abernethy’s vitalist camp, which disputed materialism. Despite his early admiration of Hartley (even naming his eldest son [Hartley David Coleridge] after him),⁷⁴ Coleridge, in his 1817 *Biographia Literaria*, reduced his admiration for Hartley simply because of his later emphasis on the mechanical mind:

It is most noticeable of the excellent and pious [David] Hartley, that in the proofs of the existence and attributes of God, with which his second volume commences, he makes no reference to the principles or results of the first. Nay, he assumes, as his foundations, ideas which, if we embrace the doctrines of his first volume, can exist no where but in the vibrations of the ethereal medium common to the nerves and to the atmosphere.⁷⁵

Coleridge’s organic theory of the mind originates from his support of vitalism and his dislike of Hartley’s mechanical hypothesis. The Monster’s body, in Mary Shelley’s novel, mediates between these theories of Coleridge and Locke, a cross-fertilisation of an organicist view with a mechanical one. On the one hand, its body is created without a ‘natural’ process or a divine design. On the other, the Monster has a human and ‘organic’ mind more sensitively attuned than those of others.

The Monster's 'artificial' body dismantles the boundaries between the mechanic and the human and prefigures a post-industrial view of the body. With interpretations in philosophy and life science, the concept of 'machine' exists in greater variations in the modern era. Cyborgs, artificial intelligence (robots), and clones are all current terms that blur the boundaries between natural selection and technological manipulations or 'the human and nonhuman'.⁷⁶ In this sense, Frankenstein's monster is their forerunner in the issue of an organic machine. This concept of machine in *Frankenstein* may date back to an eighteenth-century automaton fiction in which a craftsman nicknamed Frankenstein creates an intelligent automaton.⁷⁷ Despite their being no direct link between the organic body and the notion of the 'human machine', the union of the two was circulated as an ideal in the eighteenth century and has been revived in present cybernetics. Redefining our sense of the 'human' can bring about a new, materialist way of thinking. Some current critics, for instance, Jay Clayton and Andrea Austin, have read *Frankenstein* in relation to cyborg studies.⁷⁸ In cyborg studies, Frankenstein's monster is viewed as a classic organicist machine. Generally, a cyborg (a term coined by Manfred Clynes in 1960)⁷⁹ is defined as a contraction of 'cybernetic organism', and is 'a hybrid of machine and organism' (either robots with humanlike qualities or humans with extensive and interactive synthetic components).⁸⁰ Clayton closes the gap between Romanticism and posthumanism⁸¹ by connecting the subjectivity of the cyborgs in science fiction to the *Frankenstein* myth. Fred Botting, however, associates Romantic rebellion with

‘[i]nformational and post-industrial revolutions’ and claims this as the advent of ‘virtual Romanticism’.⁸² Current cyborg studies tend to follow the concept of the human as machine and explain the human body from a materialist perspective and this interest starts to shift to the consciousness.⁸³ Like Descartes, some theologians shun the analogy between humans and machines in order not to subvert Christian values. Such conservative values and ethical concerns have been expressed in recent concerns over the creation of human-animal hybrid embryos and bioethics.⁸⁴

Frankenstein employs eighteenth-century materialist philosophy and science to re-examine the human body and mind in an attempt to develop a new form of materialism. This new kind of materialism finds expression in Mary Shelley’s revisionism of materialism which fuses the immaterial aspects of human experience, such as thought and emotion, with a mechanistic and materialist worldview. Read as a radical novel, *Frankenstein* extensively demonstrates atheistic and materialist views in analysis of the mechanism of the human body. The failure of Frankenstein’s creation and a warning of scientific perils imply Mary Shelley’s ethical concerns and echo Shelley’s own philosophy of the mind. Aside from the human mind, the human body in *Frankenstein* is placed in the context of mechanism. The radical revolution and materialism in late eighteenth-century France formed the centre of radical philosophy and politics. Mary Shelley’s *Frankenstein* acts as a conduit for both materialism and non-materialism, entering into a Romantic conversation about the presence of a spirit

beyond the mechanical body. That spirit is the human mind. Science is the main pursuit of the Enlightenment of thought which considers real knowledge as the product of rationalist inquiry. Romantics also pursue science, but their ultimate concerns centre on subjectivity and a nostalgic quest for a lost self. The Shelleys and their circle strike a balance between science, religion, and humanism. The Romantic spirit of the Shelley circle and 'new' materialism become the precursor of twentieth- and twenty-first century materialism (or physicalism) and its even more controversial negotiations with the intricacies of the mind and body as a complex machine.

¹ I adopt the 1818 version of *Frankenstein* edited by J. Paul Hunter. Hunter's version approximates the transcribed content published in Charles E. Robinson, *Mary Wollstonecraft Shelley, Vol. IX, The Frankenstein Notebooks, Part One* (New York; London: Garland, 1996). See Mary Wollstonecraft Shelley, *Frankenstein: The 1818 Text, Contexts, Nineteenth-Century Responses, Modern Criticism*, ed. J. Paul Hunter (New York; London: Norton: 1996). Hereafter *Frankenstein*. All quotations of *Frankenstein* will come from this book.

Concerning the debate on the authorship of this novel, see the Introduction of my thesis.

² Different from my focus, Martin Willis, particularly in his Chapter 5 'Mary Shelley's Electric Imagination', emphasises the conflicts between Romanticism and materialist science in *Frankenstein*. Martin Willis, *Mesmerists, Monsters, and Machines: Science Fiction and the Cultures of Science in the Nineteenth Century* (Kent, OH: Kent State UP, 2006) 63-93. Hereafter *MMM*.

³ Following earlier critics' interest in Enlightenment philosophy working in *Frankenstein*, Nancy Yousef draws on Lockean empiricism and the constructs of the child's mind in an attempt to explore this empiricist legacy. Lisa Zunshine has recently revisited the issue of mind in *Frankenstein* and its following popular culture from a perspective of cognitive psychology. See Nancy Yousef, *Isolated Cases: The Anxieties of Autonomy in Enlightenment Philosophy and Romantic Literature* (Ithaca, NY: Cornell UP, 2004) 149-69. Hereafter *IC*. Lisa Zunshine, *Strange Concepts and the Stories They Make Possible* (Baltimore: Johns Hopkins UP, 2008).

⁴ The term 'new materialism' was first employed in the field of philosophy by O. Lovejoy and James Bissett Pratt in 1922. They introduced psychology to the discussion of materialism. O. Lovejoy, 'Pragmatism and the New Materialism', *The Journal of Philosophy* 19.1 (1922): 5-15. James Bissett Pratt, 'The New Materialism', *The Journal of Philosophy* 19.1 (1922): 337-51.

⁵ 'Physicalism', *The Oxford English Dictionary*, Web, 12 May 2010. Hereafter *OED*.

⁶ Hereafter Victor Frankenstein is abbreviated as Frankenstein.

⁷ Regarding the Shelleys' reading list, refer to Mary Wollstonecraft Shelley, *The Journals of Mary Shelley, 1814-1844: Volume II 1822-1844*, ed. Paula R. Felman and Diana Scott-Kilvert (Oxford: Clarendon, 1987) 631-84. Hereafter *JMS* Vol. 2.

⁸ *Frankenstein* was contextualised in the eighteenth century, which was revealed in Walton's letters to his sister.

⁹ Hereafter the title of *Frankenstein* will be abbreviated to *F*. See *F*, 30.

¹⁰ For details, see *F*, 39.

¹¹ Henry M. Pachter, *Magic into Science: The Story of Paracelsus*, 1951 (Sumner, IL: Sumner, 2007) 4-5, Web.

¹² Radu Florescu, *In Search of Frankenstein: Exploring the Myths Behind Mary Shelley's Monster* (New York: Robson, 1996). Florescu attempts to connect Mary Shelley's background with *Frankenstein* the novel, but a few critics, including William I. Lengeman III, argue that the connection between history and this novel is questionable.

¹³ Quoted in Maurice Hindle, Introduction, *Mary Shelley Frankenstein; or, The Modern Prometheus*, rev. ed. (London: Penguin, 2003) xi-l, xxxviii. Hereafter 'HFI' refers to this Introduction and *HF* to this book.

¹⁴ See Peter Gay, *The Enlightenment: An Interpretation: The Rise of Modern Paganism* (New York: Knopf, 1966).

¹⁵ Mental activity or consciousness has recently attracted the attention of neuroscientists. My

ideas partly derive from James W. Kalat, *Biological Psychology*, 10th ed. (Belmont, CA: Wadsworth, 2009) 58; Elaine Perry, Heather Ashton, and Allan Young, eds. *Neurochemistry of Consciousness* (Amsterdam; Philadelphia: Benjamins, 2002) xi.

¹⁶ See Section 2 of this chapter, 'The Changing Concept of the Mind in the Enlightenment', 105-25.

¹⁷ Tim O'Keefe, *Epicurus on Freedom* (Cambridge: Cambridge UP, 2005) 76. Hereafter *EF*.

¹⁸ In the Shelleys' reading list, Shelley read *De rerum natura* from 28 July 1816 (though testified to reading this much earlier as a teenager) and reread it with Mary Shelley from 28 June 1820. *JMS* Vol. 2, 631-84.

¹⁹ Lucretius, *De Rerum Natura*, trans. W. H. D. Rouse, 2nd ed. (Cambridge, MA: Harvard UP; London: Heinemann, 1982) 221, 2449. In Martin Ferguson Smith's edition, this 'spirit' is translated as 'soul'. See Martin Ferguson Smith, ed. *On the Nature of Things*, by Lucretius (Indianapolis, IN: Hackett, 2001). Hereafter *ONT*.

²⁰ Introduction, *ONT*, vii-xxxiv, xix.

²¹ A. A. Long, *Stoic Studies* (Cambridge: Cambridge UP, 1996) rpt. 1999, 3. Hereafter *SS*.

²² Percy Bysshe Shelley, 'On The Symposium, or Preface to the Banquet of Plato', *Shelley's Literary and Philosophical Criticism*, ed. John Shawcross (London: Frowde, 1909) 41-42, 41.

²³ Christopher Gill, Introduction, *The Symposium*, by Plato (London: Penguin, 1999) x-xlvi, xv. Hereafter this book is abbreviated as *Symposium*.

²⁴ *Symposium*, 29-31.

²⁵ Soon after the release of *Frankenstein* in January 1818, the *Quarterly Review* first criticised *Frankenstein* from a negative perspective. In George Levine and U. C. Knoepfelmacher's investigations, 'the dangers of overreaching' become a general warning against a Frankensteinian/Faustian ambition or freedom in the pursuit of science. See *F*, 187-90. George Levine, and U. C. Knoepfelmacher, eds. *The Endurance of Frankenstein: Essays on Mary Shelley's Novel*, 1974 (Berkeley; Los Angeles; London: U of California P, 1982) 10.

²⁶ In the 1990s, Bernard E. Rollin and Jon Turney supported *Frankenstein* as an influential book for scientific ethics. Bernard E. Rollin, *The Frankenstein Syndrome: Ethical and Social Issues in the Genetic Engineering of Animals* (Cambridge: Cambridge UP, 1995); Jon Turney, *Frankenstein's Footsteps: Science, Genetics and Popular Culture* (New Haven: Yale UP, 1998).

²⁷ Despite not focusing on my concerns with the mind and emotion, Tim Fulford, Debbie Lee, and Peter J. Kitson draw on Walton's explorations and geographic or scientific voyages of Romantic explorers, for example, Edmond Halley, James Cook, and John Ross. See Tim Fulford, Debbie Lee, and Peter J. Kitson, *Literature, Science, and Exploration in the Romantic Era: Bodies of Knowledge* (Cambridge: Cambridge UP, 2004) 175.

²⁸ In 'What Is Enlightenment', Kant reminds Enlightenment men to '[h]ave courage to use [their] own reason' in pursuit of truth. Immanuel Kant, *Foundations of the Metaphysics of Morals and What Is Enlightenment?* trans. Lewis White Beck (Upper Saddle River, NJ: Prentice-Hall, 1997) 83.

²⁹ See *F*, 27-28.

³⁰ René Descartes, *The World and Other Writings*, trans. Stephen Gaukroger (Cambridge: Cambridge UP, 1998) 99. Hereafter *WOW*.

³¹ Ann Thomson, Introduction, *Machine Man and Other Writings*, by Julien Offray de La Mettrie (Cambridge UP, 1996) ix-xxvi. Hereafter *MMOW*.

³² Particularly see Deane's Chapter 6: 'Shelley, La Mettrie, and Cabanis: Remorse and Sympathy'. Seamus Deane, *The French Revolution and Enlightenment in England 1789-1832* (Cambridge, MA; London: Harvard UP, 1988) 95-129, 95.

³³ Thomas Hobbes, *Leviathan* (N.p.: Forgotten, 2008) Web, 24 Nov. 2010,

<<http://forgottenbooks.org>>. Norberto Bobbio, *Thomas Hobbes and the Natural Law Tradition*, trans. Daniela Gobetti (Chicago; London: U of Chicago, 1993).

³⁴ K. T. Maslin, *An Introduction to the Philosophy of Mind* (Cambridge; Malden, MA: Polity, 2001) rpt. 2005, 44. Hereafter *IPM*.

³⁵ See Owen L. Shinn, 'The Discovery of Oxygen', *Journal of the American Chemical Society* 16 (1894): 718-19, 718. Hereafter 'DO'.

³⁶ Regarding the discussion of the corporeality of the soul, see *MMOW*, xi-xii.

³⁷ *The Treatise on the Soul* is an amended version of La Mettrie's 1745 *Natural History of the Soul*. See *MMOW*, xv.

³⁸ M. K. Joseph, Introduction, *Mary Shelley Frankenstein; or, The Modern Prometheus* (Oxford: Oxford UP, 1969, 1998) v-xiii, viii. Hereafter 'JFI'.

³⁹ Peter Gay, *The Enlightenment: An Interpretation: The Science of Freedom*, 1970 (London: Wildwood, 1979) 181. Hereafter *EISF*.

⁴⁰ Not focusing on materialism, Nancy Yousef elaborates Mary Shelley's enthusiasm for the mental development of the Monster from a Lockean empiricist perspective. See her Chapter 5: 'Fantastic Form: *Frankenstein* and Philosophy', *IC*, 149-69.

⁴¹ Samuel H. Vasbinder, *Scientific Attitudes in Mary Shelley's Frankenstein*, 2nd ed. (Michigan: UMI Research, 1984) 39-40. Hereafter *SAMSF*.

⁴² *SAMSF*, 39. Thomas Jefferson Hogg, *The Life of Percy Bysshe Shelley*, ed. Deward Dowden (New York: Dutton, 1906) 359.

⁴³ Burton R. Pollin, 'Philosophical and Literary Sources of *Frankenstein*', *Comparative Literature* 17.2 (1965): 97-108, 105-06

⁴⁴ Whether Hartley is a materialist still needs debating. The main reason is probably because of his stance on Christianity. Like other philosophers in the age of Christian authorities, Hartley chose not to openly challenge Christianity. His materialist ideas instead permeate his theories of the mind.

⁴⁵ David Hume, *Four Dissertations* (London: n.p., 1757) 212-13, 212, Web.

⁴⁶ Thomas Reid, *An Inquiry into the Human Mind, On the Principles of Common Sense*, 3rd ed. (Dublin: n.p. 1779) 3, Web. Also refer to William Dean Brewer, *The Mental Anatomies of William Godwin and Mary Shelley* (Cranbury, NJ; London; Ontario: Associated UP, 2001) 15.

⁴⁷ *F*, 86.

⁴⁸ See *IC*.

⁴⁹ For details, see Ovid, *The Metamorphoses of Ovid*, trans. Mary M. Innes (New York: Penguin, 1955, 1981) 232. Hereafter *MO*.

⁵⁰ Etienne Bonnot de Condillac, *Treatise on the Sensations*, trans. Geraldine Carr. (Los Angeles: U of Southern California P, n.d.) 225. Hereafter *TS*. Also see *IC*, 111-112.

⁵¹ See the reading list of the Shelleys. *JMS* Vol. 2, 665.

⁵² S. Herrmann and Frank W. Ohl compare human memory and computer memory, for example 'a hard disk or RAM chip', to note the learning limitations of current artificial intelligence. See Christoph S. Herrmann and Frank W. Ohl, 'Cognitive Adequacy in Brain-Like Intelligence', *Creating Brain-Like Intelligence: From Basic Principles to Complex Intelligence Systems*, et. al. Bernhard Sendhoff (Berlin; Heidelberg: Springer, 2009) 314-24, 316. Nevertheless, the advances of electronic technology, predicted by science fiction, will eventually improve artificial limitations in science fact.

⁵³ See the Shelleys' reading list, *JMS* Vol. 2, 663, 665, 670.

⁵⁴ Mary Shelley read Montaigne's *Essays* from 1816 and Rousseau's *Emile* from 1815. See *JMS* Vol. 2. 663, 670.

⁵⁵ In regard to these debates, see Janis McLauren Caldwell, *Literature and Medicine in Nineteenth-Century Britain: From Mary Shelley to George Eliot* (Cambridge: Cambridge UP,

2004) 26.

⁵⁶ More recently, Stephen Hawking, British physicist, subverts his early belief that the Big Bang derived from the 'Mind of God'. See Stephen Hawking, and Leonard Mlodinow, *The Grand Design* (New York: Bantam, 2010). Hereafter *GD*.

⁵⁷ Paul Draper, ed. 'God or Blind Nature? Philosophers Debate the Evidence (2007-2008)', Web, 10 February 2008, <<http://www.infidels.org/library/modern/debates/great-debate.html>>.

⁵⁸ After Vasbinder (1984), Hindle (1985), and Butler (1993), Martin continues to explore Davy's influence in *Frankenstein*. See *MMM*, 87.

⁵⁹ Sharon Ruston, *Shelley and Vitality* (New York: Palgrave Macmillan, 2005) 37-38. Hereafter *SV*.

⁶⁰ Richard Holmes, *The Age of Wonder: How the Romantic Generation Discovered the Beauty and Terror of Science* (London: Harper, 2008) rpt. 2009, 325. Hereafter *AW*.

⁶¹ *JMS* Vol. 2, 644.

⁶² *HF*, 42-43.

⁶³ Humphry Davy, 'A Discourse, Introductory to a Course of Lectures on Chemistry (1802)', *Mary Shelley Frankenstein: Complete, Authoritative Text with Biographical, Historical, and Cultural Contexts, Critical History, and Essays from Contemporary Critical Perspectives*, ed. Johanna M. Smith, 2nd ed. (Boston; New York: Bedford; St. Martin, 2000) 211-21, 218.

⁶⁴ Percy Bysshe Shelley, *The Complete Works of Percy Bysshe Shelley*, ed. Roger Ingpen and W. E. Peck, vol. 9 (London: Benn, 1965) 223-26, 223. Hereafter *CWPBS* as the abbreviation of this book.

⁶⁵ Marilyn Butler, *Romantics, Rebels and Reactionaries: English Literature and Its Background, 1760-1830* (Oxford: Oxford UP, 1981) 19.

⁶⁶ *JMS* Vol. 1, 25.

⁶⁷ *JMS* Vol. 1, 25-26.

⁶⁸ Percy Bysshe Shelley, 'To Wordsworth', *Shelley's Poetry and Prose*, ed. Donald H. Reiman and Neil Fraistat, 2nd ed. (New York; London: Norton, 2002) 92. Hereafter this book is abbreviated as *SPP*.

⁶⁹ Percy Bysshe Shelley, *Queen Mab*, *SPP*, 16-71, 53.

⁷⁰ In his Preface to *Academical Questions*, Drummond expressed his refutations against materialism.

⁷¹ See *F*, 5-6, 185-86.

⁷² Percy Bysshe Shelley, *Shelley Memorials: From Authentic Sources*, ed. Jane Gibson Shelley (London: Smith, 1859) 256, Web. Hereafter *SM*. Jane Gibson Shelley, Shelley's daughter-in-law, first collected this letter in Shelley's memorials.

⁷³ James Engell, *The Creative Imagination: Enlightenment to Romanticism* (Cambridge, MA: Harvard UP, 1981) 334.

⁷⁴ Ian Ousby, *The Cambridge Guide to Literature in English*, rev. ed. (Cambridge: Cambridge UP, 2003) 189.

⁷⁵ See Coleridge's Chapter 7. Samuel Taylor Coleridge, *Biographia Literaria; or, Biographical Sketches of My Literary Life and Opinions*, ed. James Engell and W. Jackson Bate, vol. 1 (London: Routledge; Princeton: Princeton UP, 1983) 121-22.

⁷⁶ Jay Clayton, *Charles Dickens in Cyberspace: The Afterlife of the Nineteenth Century in Postmodern Culture* (New York: Oxford UP, 2003) 123.

⁷⁷ Julia V. Douthwaite attempts to connect Mary Shelley's *Frankenstein* with Nogaret's *Le Miroir* (1790) in an automaton setting. See Julia V. Douthwaite, 'The Frankenstein of the French Revolution: Nogaret's Automaton Tale of 1790', *European Romantic Review* 20.3 (2009): 381-411, 381.

⁷⁸ Jay Clayton, 'Frankenstein's Futurity: Replicants and Robots', *The Cambridge Companion*

to *Mary Shelley*, ed. Esther Schor (Cambridge: Cambridge UP, 2003) 84-99. Andrea Austin, 'Frankie and Johnny: Shelley, Gibson, and Hollywood's Love Affair with the Cyborg', *Romanticism on the Net* 21 (2001), 30 January 2010.

⁷⁹ The term 'cyborg' first appeared in Manfred E. Clynes's essay 'Cyborgs and Space', co-authored with Nathan S. Kline, in which Clynes focuses on the relationship between the human nervous system and computer applications to develop a theory of 'biologic control systems' (e.g., heart-rate or pupil-dilation monitoring). Despina Kakoudaki, Introduction, *The Human Machine: Artificial People and Emerging Technologies*, diss. UC [University of California], Berkeley, 2000, 16.

⁸⁰ Joseph Childers and Gary Hetzi, *The Columbia Dictionary of Modern Literary and Cultural Criticism* (New York: Columbia UP, 1995) 69. Chris Hables Gray, ed. *The Cyborg Handbook* (New York: Routledge, 1995) 567. Hereafter *CH*. Donna Haraway, 'A Cyborg Manifesto: Science, Technology, and Socialist-Feminists in the Late Twentieth Century', *Contemporary Literature Criticism: Literary and Cultural Studies*, ed. Robert C. Davis and Ronald Schleifer (New York: Longman, 1994) 566-95, 567.

⁸¹ The issue of cyborgs has been incorporated into the context of posthumanism. See N. Katherine Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* (Chicago: U of Chicago P, 1999). Cary Wolfe, *What Is Posthumanism?* (Minneapolis, MN: U of Minnesota P, 2010).

⁸² Fred Botting, 'Virtual Romanticism', *Romanticism and Postmodernism*, ed. Edward Larrissy (Cambridge: Cambridge UP, 1999) 98-112, 100.

⁸³ In these studies, Chris H. Gray regards Frankenstein's monster as 'the first cyborg'. See *CH*, 5. Regarding the cyborg's consciousness, see William S. Haney II, *Cyberculture, Cyborgs and Science Fiction: Consciousness and the Posthuman* (Amsterdam; New York: Rodopi, 2006).

⁸⁴ Jochen Taupitz, and Marion Weschka, *Chimbrids: Chimera and Hybrids in Comparative European and International Research* (London; New York: Springer, 2009) 655.

CHAPTER FOUR

Tracing Emotion: Shelley's *Alastor* (1816) and Byron's *Manfred* (1817)

This chapter examines the role of emotion in *Alastor* and *Manfred*.¹ Few critics have focused directly on the issue of emotion in *Alastor* and *Manfred* despite the fact that critics, including Harold Bloom, Jerrod E. Hogle, and James Twitchell, have recognised the significance of *Alastor* and *Manfred* to Romantic literature.² The subject of human emotion intrigues the Shelley circle and becomes a central concern of their works, as is evident in Shelley's *Alastor; or, The Spirit of Solitude* (1816)³ and Byron's *Manfred* (1817).⁴ Even in earlier works, this intellectual group was preoccupied with human emotions and how they relate to the mind.⁵ Both Shelley's and Byron's works, *Alastor* and *Manfred*, share a fascination with the morally unconventional Faustian figures and this in various, often unexpected, ways reinforces their focus on emotion.⁶ My chapter aims to explore the varying degrees to which Byron's *Manfred* and Shelley's *Alastor* are permeated with their respective poet's scientific understanding of mind and emotion. This fascination with explanations of the mind and emotion extends to the rest of the Shelley circle and plays a part in forming its alliance in Geneva in the summer of 1816.⁷ Shelley and Byron delineate 'negative' emotions, particularly solitude and grief, throughout *Alastor* and *Manfred*. In the 1815 Preface to *Alastor*, Shelley considers his narrative poem 'as allegorical of one of the most interesting situations of the human mind' (*SPP*, 72) and points out selfishness or self-love as an

‘apportioned curse’ (*SPP*, 73) that causes the poet-figure to become alienated from both society and happiness:

All else, selfish, blind, and torpid, are those unforeseeing multitudes who constitute, together with their own, the lasting misery and loneliness of the world. Those who love not their fellow-beings, live unfruitful lives, and prepare for their old age a miserable grave. (*SPP*, 73)

Mary Shelley’s comments on *Alastor* single out ‘emotion’ and see the poem as ‘the out-pouring of his [the Poet’s] own emotions’.⁸ Similarly, Byron’s earlier works explore emotion⁹ and *Manfred* in particular focuses on those destructive emotions of the human mind, such as remorse and madness. This chapter focuses on the philosophical dialogues between Shelley and Byron in *Alastor* and *Manfred* as a starting-point to explore the significance of emotion within these specific works and the Shelley circle (1812-1821) more generally.

Surprisingly, there are few comparative readings of *Alastor* and *Manfred* which focus solely on both emotion and the mind.¹⁰ Charles E. Robinson notes the relationship between Shelley’s *Alastor* and Byron’s *Manfred*: ‘That Byron’s first drama [*Manfred*] resulted from Shelley’s influence is apparent, I believe, from the foregoing evidence of the Alastorian quest in *Manfred*’.¹¹ Expanding D. G. James’s and Robinson’s views, Peter Cochran conveys Byron’s anti-idealism in *Manfred* and Shelley’s idealism in *Alastor*: ‘Drama and idealism make poor bedfellows, for drama is unhappy with the abstract’.¹² Earl R. Wasserman

indicates that Shelley's *Alastor* occupies a conflicted site between reason and passion which finds expression in the ambiguous relationship between the 'Wordsworthian Narrator' (20) and the poet-figure in Shelley's poem.¹³ Writing after Wasserman, critics including Michael O'Neill, Jerrold E. Hogle, Timothy Clark, and Karen Weisman have examined the workings of the mind in their readings of *Alastor*.¹⁴ Hogle also describes Shelley's desire for 'seeking relationships between thoughts and sentient beings' in *Alastor*.¹⁵ Critics of *Manfred*, including Bertrand Evans, Andrew Elfenbein, and Drummond Bone, connect mental processes to the issue of emotion by discussing the role of remorse and lust in Byron's drama.¹⁶ More recently, Ross Woodman has analysed representations of the mind in Romanticism and those metaphorical and reciprocal connections between the polarised emotions – 'sanity' and 'madness' – in the works of both Byron and Shelley.¹⁷ Similar to my critical concerns, Alan Richardson aims 'to give the brain a central place in the history of the Romantic mind' by focusing on the history of neuroscience and those Romantic texts produced outside of the Shelley circle 'from the 1790s to around 1830'.¹⁸

Byron's and Shelley's allegorical language is read in this chapter as prefiguring neuroscience and genetics and echoing early empiricism and materialism. Despite some criticism on psychic process in *Alastor* and *Manfred*, the relationship between emotion and materiality has not been central to interpretations of either Shelley's *Alastor* or Byron's *Manfred*. My comparative reading of these two poems draws on eighteenth-century

philosophical ideas of materialism and empiricism prevalent in Shelley's own time and explores, where appropriate referring to recent neuroscientific theory, Shelley's and Byron's poetic representations of the mind and emotion. Distinct from the approaches of Bloom's 'mythmaking' and Weisman's 'fiction making' to Shelley's poetry,¹⁹ my neuroscientific reading – closer to Hogle's assertion of demythologisation²⁰ – demonstrates the desire Byron and Shelley shared to understand the human mind and emotion within their poetry.

I. The Mind and Science

A series of debates between John Abernethy and William Lawrence about vitalism and materialism from 1814 to 1819 significantly influenced the thinking of Byron and Shelley about the workings of the mind. Opposed to materialism, vitalism is associated with the concept of the immateriality of the mind or the long-established idea of the *soul*. Both the young Byron and Shelley, however, were sympathetic to some form of atheistic materialism. Just as 'materialist-vitalist debates' and 'phrenology' influenced Jane Austen,²¹ empiricism, materialism, and atheism also furnished Byron and Shelley with a scientific philosophy to understand the world and the self. Shelley's interest in science started during his few months study at Oxford and his interest in electricity leads him to the realm of the mind.²² In fact before writing *Alastor*, Shelley bought, on 18 April 1815, a translation of *De Rerum Natura* (*On the Nature of Things*), written by Lucretius (ca. 99 – ca. 55 B.C.) and reread this volume

when he was in Byron's company at the Villa Diodati, Switzerland, in the summer of 1816.²³

Lucretius incorporates Epicureanism, materialism, and atomism into his book to speculate about the mortality of the mind and thought. Recent critics, in particular Hugh Roberts, do recognise Lucretius's influence on Shelley, but the subject of the human mind in *Alastor* has not been the main critical focus.²⁴

These philosophical exchanges between Byron and Shelley, within the context of debates between contemporary theories of materialism and vitalism, influenced both poets' understandings of the human mind. *Alastor* chimes with Shelley's conviction about atheism and materialism that he followed and defended in his earliest works.²⁵ Shelley's letter to Elizabeth Hitchener, dated 11 June 1811, is suggestive of his negotiations with materialist thinking.²⁶ In his 1815 'On Life', a significant essay that forms an early draft of his *Philosophical View of Reform* (1819),²⁷ Shelley acknowledges that French materialism provided him with the means to negate moral or religious dogmatism, but he complains that materialism and dualism alike fail to help him understand the precise significance of the existence of a living organism: 'Such contemplations as these materialism and the popular philosophy of mind and matter, alike forbid; they are consistent only with the intellectual system' (*SPP*, 507). This confusion over the precise meaning of *life* even persists in Shelley's final and unfinished poem *The Triumph of Life* (1822): "'Then, what is Life?'" I said ...' (544).²⁸ Earlier than his *Philosophical View of Reform*, Shelley noted this potential problem

with materialism during the composition of *Alastor* in 1815. In the Preface to *Alastor*, Shelley points out that the poet-figure shifts his enthusiasm from scientific knowledge to a less rigid understanding of the mind and the emotion of love: ‘But the period arrives when these objects cease to suffice. His mind is at length suddenly awakened and thirsts for intercourse with an intelligence similar to itself’ (*SPP*, 73). Shelley attempts to articulate the significance of emotion by retelling the poet-figure’s miserable quest. In *Alastor*, Shelley re-imagines a Wordsworthian epiphany of religious love, described in *The Excursion*, as ‘human sympathy’ (*SPP*, 73) in terms of: ‘Those who love not their fellow-beings, live unfruitful lives, and prepare for their old age a miserable grave’ (*SPP*, 73). This motif of sympathy recurs in *Frankenstein*, where Victor Frankenstein isolates himself from society, only seeking to succeed in creation of a perfect human being through galvanic reanimation. Frankenstein lacks sympathy for the Monster and his ugliness and eventually, like the Poet in *Alastor*, dies in misery. Similarly, Shelley’s poems meditate on the complicated subject of the mind from an atheistic and materialist perspective.²⁹

Intimate with his physician, John Polidori, and Lawrence’s materialist circle, Byron also has sympathy with atheism and materialism. Byron’s atheist scientific views permeate his *Manfred*. Shelley and Byron shared and discussed their mutual intellectual interests after Byron and Polidori moved to the Villa Diodati on 10 June 1816 and were the Shelleys’ neighbours.³⁰ In her journal on 28 and 29 July 1816, Mary Shelley points to this momentous

philosophical spark within the circle:

I read Voltaires Romans. S. [Shelley] reads Lucretius & talks with Clare – after dinner he goes out in the boat with Lord Byron ... Monday 29th Write – read Voltaire & Quintius Curtius – a rainy day with thunder and lightning – Shelley finishes Lucretius & reads Pliny's letters. (*JMS* Vol. 121)

Shelley may have shared his reading with Byron at this time on Lake Geneva. Prior to this encounter in July 1816 and his writing of *Manfred* in September 1816, Byron noted his sympathy with materialism in his diaries and letters in 1813. Byron shared Shelley's impression of Voltaire's epitaph and supported this arch French radical philosopher in a letter to Lady Melbourne written on 21 September 1813.³¹ In addition to his sympathy with French materialists, Byron is deeply influenced by the philosophy of Epicurus and Lucretius. In his diary entry, dated 17 November 1813, Byron affirmed his adherence to Epicurus and Lucretius:

We are all selfish—and I believe, ye gods of Epicurus! I believe in Rochefoucault about *men*, and in Lucretius (not Busby's translation) about yourselves. ... I remember, last year, ** [Lady Oxford] (sic) said to me, at ** [Eywood] (sic). 'Have we not passed our last month like the gods of Lucretius?' And so we had. (*SPLD* Vol. 1, 211)

Byron's and Shelley's enthusiasm for scientific reasoning, in particular their

interrogations of nature, permeates the opening passages of Shelley's *Alastor* and Byron's *Manfred*. Shelley and Byron meditate on the mystery of nature and attempt to reveal its inner mysteries.³² Unlike Wordsworth, Byron and Shelley attempt to reconcile the physical *nature* with that of human *nature* and the mind from a materialist point of view. The conflict between vitalism and materialism explains the distinctive perspectives on 'life' taken up by the first- and second-generation Romantics, but Wordsworth's influence is also clearly exerted upon the Shelley circle.³³ Byron's and Shelley's scientific interpretations of human nature prefigure recent concepts of *human nature*, which relate human behaviour to genetic engineering.³⁴ Following Charles Darwin's theory of evolution, researchers in socio-biology have revisited the significance of 'a genetic explanation of behaviour':

Thus, in addition to constant announcements of discoveries of genes for any number of diseases, we also have the concomitant announcement of a single or a small number of genes for complex behaviours such as homosexuality, alcoholism, intelligence, shyness, aggression, and all manner of other behaviours.³⁵

In my following discussion, the mind or brain activity is understood as determined by genetic manipulations and environmental stimulations. This revisionist hypothesis follows current debates over 'genes and environment' or 'the nature-nurture problem' in biology and psychology. Referring to Wimsatt (1986) and Oyama (1985), Daniel W. McShea re-affirms

that ‘... the nature-nurture problem has taken the form of a debate over the relative importance of genes and environment to the determination of human nature’.³⁶ In the context of British Romanticism, Richardson notes that ‘new biological psychologi[sts]’ reassert the old-fashioned ‘temperament’ and focus on ‘the innate and hereditary aspects of character’ (‘HHI’, 303).³⁷ In the opening passages of *Alastor* and *Manfred*, Shelley’s Narrator and Byron’s Manfred endeavour to understand the nature of their minds through recollections of their past. In the opening of *Alastor* (A, 1-49), the Narrator invokes nature, calling her ‘Mother of this unfathomable world’ (A, 18), in order to know the mystery of ‘thought’ (A, 40). Shelley, in the Preface to *Alastor*, demonstrates his attempt to connect nature with human nature: ‘The magnificence and beauty of the external world [nature] sinks profoundly into the frame of his conceptions [human nature]...’ (SPP, 72).

Byron’s Manfred also invokes nature (‘the unbounded Universe’ (I.i.29)) and speculates about the origin of irresistible ‘thought’ within him (I.i.4-7).³⁸ Manfred explores ‘spirits’ (M, I.i.29) that exist in nature and human nature: ‘Mysterious Agency! / Ye spirits of the unbounded Universe! / Whom I have sought in darkness and in light—’ (M, I.i.28-30). Byron suggests that this ‘[m]ysterious Agency’ (M, I.i.28) relates to the mechanism of being and those ‘spirits’ (M, I.i.29) which exist as particles of the Universe – whose mystery Manfred attempts to disclose. In *Manfred*, Byron’s Manfred in particular meditates on the workings of thought when he recalls his travels to the ruins of Rome: ‘’Tis strange that I

recall it at this time; / But I have found our thoughts take wildest flight / Even at the moment when they should array / Themselves in pensive order' (*M*, III.iv.43-46). Despite dwelling in the mind, 'thoughts', like an uncatchable substance, lose control and 'take wildest flight' (*M*, III.iv.44).

Human nature, mind, or thought in *Alastor* and *Manfred* is born with the advent of vitality or life. Distinct from Wordsworth's sense of immaterial vitality, vitality in Shelley's and Byron's philosophy is associated with matter. William Empson, analysing Wordsworth's 'Tintern Abbey', notes that Wordsworth's perspective 'teeters between pantheism and the monistic materialism'.³⁹ Nevertheless, Paul H. Fry revisits Wordsworth's later 'metaphysics' and roots the concept of 'nature' throughout Wordsworth's poetry in physics or naturalism.⁴⁰ Despite his youthful misgivings about religion, British monarchy, and vitalism, the older Wordsworth, ostensibly, becomes more religious and politically conservative. In Shelley's poetic terms, nature is the Mother of the Narrator and makes him feel his own existence through '[h]er first sweet kisses' (*A*, 12). Those 'kisses' determine the birth of the individual's being. The mythical breaths or kisses resonate with the engendering of life and the processes of fertilisation. Shelley employs poetic or mythic metaphors to trace the relationship between vitality and thought. 'Mother' (*A*, 2), in *Alastor*, refers to nature as well as vitality. Life, being, or vitality, to the Narrator of *Alastor*, is comparable to a breath: 'If spring's voluptuous pantings when she [Mother Nature] breathes / Her first sweet kisses, have been dear to me;'

(A, 11-12). The 'first' kisses with breath or vitality which animate the Narrator are a metaphor of animation and alludes to God's breathing life into Adam's clay. Nonetheless, the Narrator addresses the 'Great Parent [i.e., nature]' (A, 45) and questions whether his 'soul' can ever connect the spirit of nature:

If our great Mother has imbued my soul

With aught of natural piety to feel

Your love, and recompense the boon with mine; (A, 2-4)

The word 'soul' (A, 2) in Shelley's atheistic sense is an instance of material vitality. Put differently, the Narrator's birth as an 'imbued' (A, 2) living organism anticipates modern theories of 'built-in' DNA codes that dominate human feelings. Suffering from this radical interest in exploring nature and alchemy, the Narrator longs to return to a simple state of mind. Having learned of the poet-figure's tragic death in solitude (as embodied in the title of this poem: 'Alastor; or, The Spirit of Solitude'),⁴¹ the Narrator also recognises his own tragic and morally unconventional nature. In Shelley's poetry, the Narrator invokes the beloved Mother Nature and hopes for redemption from his overreaching ambition in pursuit of mystic science and the secrets of nature:

... for I have loved

Thee ever, and thee only; I have watched

Thy shadow, and the darkness of thy steps,

And my heart ever gazes on the depth

Of thy deep mysteries. ... (A, 19-23)

Shelley's use of the terms 'shadow' (A, 21), 'darkness' (A, 21), and 'deep mysteries' (A, 23), indicate the Narrator's fascination with mystic science. The Narrator suggests that the 'deep mysteries' (A, 23) of knowledge lead him to miserable thoughts: 'Like an inspired and desperate alchemist / Staking his very life on some dark hope,' (A, 31-32).

Both Shelley and Byron recognise the impact of overreaching knowledge on human emotion. Negative emotions, described in *Alastor* and *Manfred*, interfere with human well-being. The pursuit of knowledge in particular leads to the tragedies of the Poet in *Alastor* and Byron's *Manfred*. In the Preface to *Alastor*, Shelley clearly points to this ambition and search for knowledge: 'He [the Poet] drinks deep of the fountains of knowledge, and is still insatiate' (SPP, 72). Having learned of the Poet's tragedy, the Narrator in *Alastor* confesses that his own ambition to explore the mystery of nature instigates his own misfortune:

... I have watched

Thy [Mother Nature's] *shadow*, and the *darkness* of thy steps,

And my heart ever gazes on the *depth*

Of thy *deep mysteries*. I have made my bed

In *charnels* and on *coffins*, where *black death*

Keeps record of the trophies won from thee, [Emphasis added] (A, 20-25)

Both the Narrator and the Poet may endeavour to discover ‘deep mysteries’ (A, 23) – the secret of ‘life’ or creation – through their endless experiments in alchemy. Some alchemists sought to reveal the mechanism of vitality so as to achieve human longevity, re-animation, and even rejuvenation. Such a pursuit is disclosed in the Narrator’s confession – ‘the darkness of thy steps’ (A, 21) – as well as his own reflections on the fascinations of alchemy and its search for rejuvenation: ‘O, for Medea’s wondrous alchemy, / Which wheresoe’er it fell made the earth gleam / With bright flowers, and the wintry boughs exhale / From vernal blooms fresh fragrance! ...’ (A, 672-75). Medea’s myth depicts a scenario of perfect alchemy achieving both rejuvenation and reanimation. The imagery of ‘bright flowers’ (A, 674) on earth and ‘vernal blooms’ (A, 675) on ‘the wintry boughs’ (A, 674) illustrates one of the ultimate aims of the metaphorically ‘dark magician[’s]’ (A, 682) pursuit of rejuvenation. This optimal, hoped for, state in alchemy lures the Narrator and the Poet to pursue an unattainable dream which disheartens them. Recalling Ahasuerus in Shelley’s *Queen Mab* (1813) – and the central figure of his *The Wandering Jew; or, The Eternal Avenger* (1810) – the miserable Poet in *Alastor* is akin to the wretched Cain wandering the earth.⁴²

... O, that God,

Profuse of poisons, would concede the chalice

Which but one living man [the Wandering Jew] has drained, who now,

Vessel of deathless wrath, a slave that feels

No proud exemption in the blighting curse

He bears, over the world wanders for ever,

Lone as incarnate death! ... (A, 675-81)

This Faustian ambition, considered as both ‘poisons’ (A, 675) and a ‘blighting curse’ (A, 679), recurs in *Alastor* and later in *Frankenstein*. The Narrator in *Alastor* senses that anyone who fails to dominate emotion, particularly *passion*, during his or her pursuit of knowledge is ‘... a slave that feels / No proud exemption in the blighting curse’ (A, 678-79). In the opening passage of *Alastor*, the Narrator stresses a negative image of overreaching knowledge through rummaging amongst ‘charnels’ (A, 24) and ‘coffins’ (A, 24) in search of answers. Like the cursed Wandering Jew, the Poet is hounded by endless mental sufferings, symbolised by the Furies. In the Preface to *Alastor*, Shelley points out the Poet’s miseries: ‘The Poet’s self-centred seclusion was avenged by the [F]uries of an irresistible passion pursuing him to speedy ruin’ (SPP, 73). The Furies in Shelley’s narrative are the personification of negative emotions in human *nature*. That is to say, the Poet is haunted by *something* unpleasant in his mind, particularly, those shadowy memories of his past unsuccessful pursuit of ‘mysterious’ knowledge on what might be better understood as alchemy. Anticipating *Frankenstein*, Shelley’s *Alastor* associates alchemy with reanimation: ‘Such magic as compels the charmed night / To render up thy charge: [...] and, though ne’er yet / Thou hast unveil’d thy inmost

sanctuary,' (A, 36-38). Yet, as in *Frankenstein*, Shelley's Narrator fails to enter nature's 'inmost sanctuary' (A, 38) and successfully unveil the secret of her creation.

Manfred's monologue at the very beginning of Byron's *Manfred* addresses the same topic of emotion and the pursuit of knowledge. With a Faustian remorse in mind, Manfred also recognises the limitations of human knowledge:

But grief should be the instructor of the wise;

Sorrow is knowledge: they who know the most

Must mourn the deepest o'er the fatal truth,

The Tree of Knowledge is not that of Life.

Philosophy and science, and the springs

Of wonder, and the wisdom of the world,

I have essayed, and in my mind there is

A power to make these subject to itself— (M, I.i.9-16)

Byron notes the potential danger of exploring knowledge in nature without paying attention to human needs and nature. Byron, in *Manfred*, tends to affirm the potential danger in overreaching knowledge or actions. Manfred's pursuit of scientific knowledge, like the Poet's enthusiasm for 'alchemy' in *Alastor*, attempts to surpass human limitations. The myth of Prometheus, as an allegory of scientific discoveries, is well-known to the Shelley circle and the image of tortured Prometheus heightens their awareness of the conflicts between science

and happiness.⁴³ In spite of an intimate acquaintance with science or natural philosophy, the Poet in *Alastor* and Byron's Manfred do not really attain happiness through science. The First Destiny mocks Manfred's human limitations:

That knowledge is not happiness, and science

But an exchange of ignorance for that

Which is another kind of ignorance. (*M*, II.iv.61-63)

Manfred's scientific endeavour, as the mocking Destiny knows, does not bring him 'happiness' (*M*, II.iv.61), but grief. In his dramatic context, Byron is relating science to the systematised knowledge that eighteenth-century natural philosophers pursue through scientific reasoning and experiments. Nevertheless, Byron's scepticism is less focused on scientific and religious debates, and more concerned with aesthetic or emotional matters. 'A power' (*M*, I.i.16) in Manfred's 'mind' (*M*, I.i.15) may refer to unknown emotion. In the opening passage of *Manfred*, Byron employs the imagery of Eden to recall the spiritual suffering that knowledge can bring. By increasing his knowledge of nature, Manfred endures more sufferings and sees 'knowledge' as the fountainhead of 'sorrow' (*M*, I.i.10). Manfred, during his invocation to nature, urges nature to give him power to remove 'the strong curse' (*M*.I.i.47) of bad thoughts or memories from his mind: 'By the strong curse which is upon my soul, / The thought which is within me and around me, / I do compel ye to my will.—Appear!' (*M*, I.i.47-49). The mind, for Manfred, is 'a wandering hell' (*M*, I.i.46). In

this sense, Shelley and Byron meditate on the intricate relationship between the construction of knowledge and the corporeal mind. The two poems disclose the poets' scepticism about knowledge and their desire to explore the mystery of the mind, particularly grief and solitude.

The emblems of the swan in *Alastor* and the eagle in *Manfred* suggest a contrast between nature and the observing self. In lines 275-95 from *Alastor* and lines 26-46 of *Manfred* (Act I, Scene II), the spheres of the outer nature and the inner nature in the Poet's and Manfred's mind are contrasted. The outer nature reflects the beautiful in the perceived world, whereas the human nature or the mind demonstrates the sublime. The activities of the mind or the changes of emotion result from sense stimulations. Shelley and Byron depict emotional sufferings or negative sublimity in *Alastor* and *Manfred*. In *Alastor*, Shelley uses 'the lone Chorasmian shore' (A, 273) and a beautiful swan flying up to the sky (A, 275-80) to demonstrate the Poet's emotions. In *Manfred*, Byron uses the cliffs in the mountain of the Jungfrau and a beautiful eagle winging over the mountains to illustrate Manfred's emotions (M, I.ii.1-38). These two scenes in *Alastor* and *Manfred* connect the physical nature to human nature. These two birds reflect the beautiful – a state of peace in the mind. To the wretched existences of Shelley's Poet and Byron's Manfred, respectively, the swan and the eagle symbolise a blessed state of affectionate attachment to place and 'home'. Coming from an 'alienated home' (A, 76), the Poet in *Alastor* imagines that the swan has an eager companion awaiting its return:

... "Thou hast a home,

Beautiful bird; thou voyagest to thine home,

Where thy sweet mate will twine her downy neck

With thine, and welcome thy return with eyes

Bright in the lustre of their own fond joy. (A, 280-84)

Manfred envies the powerful eagle for its ruling of the heaven and, eventually, desires to be its prey:

Thou winged and cloud-cleaving minister [eagle],

Whose happy flight is highest into heaven,

Well mayst thou swoop so near me—I should be

Thy prey, and gorge thine eaglets; (*M*, I.ii.29-32)

On observing the swan and the eagle, the Poet and Manfred, respectively, experience two distinct emotions – the beautiful and the sublime. Here the sublime is in opposition to the beautiful and equates with ‘pain’ in Edmund Burke’s theory of aesthetics.⁴⁴ The beautiful scenes merely bring temporary delight to Shelley’s Poet and Byron’s Manfred. Yet through imagination or recollection of their miserable past, negative sublimity, like the Furies, haunts the Poet’s and Manfred’s minds. In this case, inner feelings become tangible and physiological and this flowing ‘spirit’ (or thought) captures both Shelley’s and Byron’s imagination. The contrasts between their inner sufferings (the sublime) and the outer delights

(the beautiful) reinforce the sorrow of the Poet and Manfred. This suffering leads the Poet and Manfred to ponder on the meaning of life as well as the origin of their own sufferings.

An obsession with death permeates *Alastor* and *Manfred*. Shelley and Byron recognise that death is an ultimate means to terminate emotional sufferings that the Poet and Manfred experience. Like Byron's Manfred, who is tortured by madness, the Poet in Shelley's *Alastor* endures solitude and eventually recognises his own human mortality:

... A gloomy smile

Of desperate hope convulsed his curling lips.

For sleep, he [the Poet] knew, kept most relentlessly

Its precious charge, and silent death exposed,

Faithless perhaps as sleep, a shadowy lure,

With doubtful smile mocking its own strange charms. (A, 290-95)

'A gloomy smile' (A, 290) conveys the ambivalence of his death. The 'charms' (A, 295) of death do not overwhelm his mind until his physical health is depleted. Similarly, the response of Byron's Manfred to the carefree eagle is that he would rather die as the food of the predator than live a guilty and mediocre life:

... I have ceased

To justify my deeds unto myself—

The last infirmity of evil. Ay,

Thou winged and cloud-cleaving minister [the eagle],

Whose happy flight is highest into heaven,

Well mayst thou swoop so near me—I should be

Thy prey, and gorge thine eaglets; thou art gone

.....

But we, who name ourselves its sovereigns, we,

Half dust, half deity, alike unfit

To sink or soar, (*M*, I.ii.26-41)

Unlike the eagle, which is capable of sinking or soaring (*M*, I.ii.41), humans, Manfred suggests, are physically limited: ‘... we / Half dust, half deity, alike unfit / to sink or soar...’ (*M*, I.ii.39-41). Experiencing emotional sufferings, Manfred, therefore, rethinks the greatness of humankind. The concept of mediocrity in humans is also evident in *Alastor*. In *Alastor*, the Poet observes the swan flapping ‘... strong wings / Scaling the upward sky, bent its bright course / High over the immeasurable main’ (*A*, 277-79). It is notable that human limitations, for Shelley and Byron, are on the surface related to the physical body which restricts actions and profoundly dominates their emotions. Our intellectual capacities may lead humans to regard themselves as ‘half deity’,⁴⁵ rulers over other creatures and nature. ‘But’, as Manfred recognises, ‘we, who name ourselves its sovereigns, we, / Half dust, half deity, ...’ (*M*, I.ii.39-40). This encounter with the eagle reminds Manfred of his limitations and inability to

overcome his negative memory and feel as carefree as the eagle does. The Poet, in *Alastor*, also experiences a similar plight. That is, he fails to transcend his physical and emotional limitations. The sufferings of the Poet and Manfred overwhelm their minds and, eventually, they feel impotent to dispel gloomy emotion from their minds. Rethinking anthropocentrism, Shelley and Byron suggest that a complicated mind, full of thoughts, prevents the human mind from returning to a simple or instinctive state of happiness.⁴⁶

Within *Alastor* and *Manfred*, ancient ruins are the encrypted lessons of human civilisations.⁴⁷ While natural philosophers employ scientific methods to obtain knowledge from nature, Shelley and Byron, like cultural archaeologists, endeavour to rake ancient ruins for a deeper understanding of human existence and civilisation.⁴⁸ The Poet in *Alastor* journeys through time and ancient civilised sites: ‘The awful ruins of the days of old:’ (A, 108). Those ancient ruins are located in South Europe, Middle East, and North Africa, for example ‘Athens’, ‘Tyre’, ‘Balbec’, ‘Jerusalem’, ‘Babylon’, ‘Memphis’, ‘Thebes’, and ‘Æthiopia’ (A, 109-12, 115). Byron’s Manfred encounters the ancient civilisation of Rome (*M*, III.iv.8-30), in the form of the ruins of ‘the Colosseum’s wall’, ‘the Caesars’ palace’, ‘Caesar’s chambers’, and ‘the Augustan halls’ (*M*, III.iv.10, 16, 29). In his recollections, Manfred retrieves sense data about physical objects as if they were stored in his neural memory. Shelley’s poet-figure journeys in those sites and accumulates data in his mind. This journey reflects a worldview in which the self is constructed through the stimulations of the

physical objects. In *Alastor* and *Manfred*, Shelley and Byron illuminate the effect of those ruins upon the mind and the connection between the physical objects and intellect. In *Alastor*, the Poet attempts to disclose the mystery of ancient ‘thoughts’ through reading a series of ruins, for example ‘the eternal pyramids’, ‘alabaster obelisk’, ‘jasper tomb’, ‘mutilated sphynx’, ‘ruined temples’, ‘[s]tupendous columns’, ‘wild images [o]f more than man’, and ‘marble dæmons’ (A, 111-20). The Poet reads the ruins like natural texts or codes and attempts to produce meaning. To the Poet, in *Alastor*, the silent ruins await his interpretations:

... dead men

Hang their mute thoughts on the mute walls around,

He lingered, poring on memorials

Of the world’s youth, (A, 119-22)

Clearly, the ‘mute thoughts’ (A, 120) of people in history, as well as on ‘the mute walls’ (A, 120), represent the original meaning that the Poet endeavours to understand through those ‘memorials’ (A, 121). Shelley suggests that the constructs of knowledge or the forms of ‘history’ are dependent on the interpretations of the individual, especially those sophisticated readings of archaeologists, scientists and historians. In *Alastor*, the mystery of ‘understanding’ is unveiled:

Gazed on those speechless shapes, nor, when the moon

Filled the mysterious halls with floating shades

Suspended he that task, but ever gazed

And gazed, till meaning on his vacant mind

Flashed like strong inspiration, and he saw

The thrilling secrets of the birth of time. (A, 123-28)

Shelley echoes a Lockean empiricist view of the mind. The Poet's 'vacant mind' (A, 126)

relates to Locke's concept of *tabula rasa* in *An Essay Concerning Human Understanding*

(1689): 'Let us then suppose the mind to be, as we say, white paper, void of all characters,

without any ideas ...' (2.1.2).⁴⁹ As well as Lucretius, Shelley had an intimate acquaintance,

in 1815, with Locke's *Essay Concerning Human Understanding* before composing *Alastor*.⁵⁰

Locke's empiricism illuminates the construction of knowledge through senses: 'No man's

knowledge here can go beyond his experience' (*ECHU*, 2.1.19). In *Alastor*, Shelley's

interrogation of 'meaning' (A, 126) or knowledge is determined by Locke's empiricism in *An*

Essay Concerning Human Understanding. In his account about knowledge, Locke relates its

'materials' to sensation and reflection: 'Our observation employed either, about external

sensible objects [i.e., sensation], or about the internal operations of our minds perceived [i.e.,

reflection] and reflected on by ourselves, is that which supplies our understandings with all

the *materials* of thinking' (*ECHU*, 2.1.2). The Narrator in *Alastor* points to the Poet's

cognitive development and his intuitive understanding of nature:

By solemn vision, and bright silver dream,

His infancy was nurtured. Every sight
And sound from the vast earth and ambient air,
Sent to his heart its choicest impulses.
The fountains of divine philosophy
Fled not his thirsting lips, and all of great,
Or good, or lovely, which the sacred past
In truth or fable consecrates, he felt
And knew.... (A, 67-75)

The Poet is 'nurtured' (A, 68) through a wealth of environmental stimulations: '... Every sight / And sound from the vast earth and ambient air, / Sent to his heart its choicest impulses' (A, 68-70). Those 'choicest impulses' (A, 70) refer to his natural education in which delicate sources are sent to 'his heart' (A, 70). This concept echoes Locke's idea of 'thinking' and memory: '... the memory of thoughts is retained by the impressions that are made on the brain, and the traces there left after such thinking ...' (*ECHU*, 2.1.15). Without the association of ideas or thinking, sense experience is necessarily the major element from which to construct an 'intelligent' mind. For that reason, the Poet '[g]azed on those speechless shapes ...' (A, 123) in the ancient ruins and only recognises its meaning when '... his vacant mind / Flashed like strong inspiration ...' (A, 127).

Byron's Manfred conveys his intention to connect nature with the hidden meaning: 'I

learn'd the language of another world' (*M*, III.iv.7). After a tour of Roman relics, Manfred suggests that his knowledge of the ancient glory is proved and reinforced by the ruins: 'The dead, but sceptred sovereigns, who still rule / Our spirits from their urns.—' (*M*, III.iv.40-41). In other words, the human mind, associated with 'spirit' in Byron's lines, is affected by those past *ideas*, which are recorded from signs, symbols, and objects. Language is a science of signs that forms a major medium to ascribe those ideas or codes meaning. That is, the individual's understanding of the world derives from the naming of objects through such signs and symbols. Those ruins, to Manfred's acute intelligence, are not simply meaningless and beyond comprehension, but meaningful signs. Every detail conveys to Manfred a historical scenario. The history of the Roman Empire through his previous 'education' initially forms images in Manfred's mind and later those ancient relics strengthen those connections with previous knowledge. Dependent on such a historical imagination or mapping, Manfred gives the ruins meaning. Manfred's imagination revives the Caesars' glory age and 'the gladiators' bloody Circus' (*M*, III.iv.27). As for Shelley and Byron, thoughts are viewed as optical matter travelling to the mind like light.⁵¹ In *Alastor*, 'meaning' or thought approaches the mind like a flash: 'Flashed like strong inspiration ...' (*A*, 127).⁵² The narrative in *Alastor* and *Manfred* illuminates Byron's and Shelley's own scientific interests and reflections on mental processes and their interactions with the outer world.

II. Love and Emotion

Repressed emotion and desire of an unobtainable desired object are at the centre of the narrative structures of *Alastor* and *Manfred*. A veiled girl in *Alastor* and Astarte's ghost in *Manfred* are seen as visions which crystallise the poets' emotions in search of love. In *Alastor*, the Poet's dream (A, 151-91) reflects his desire for ideal love or a so-called soul mate. In *Manfred*, the encounter with the phantom of Astarte (M, II.iv.98-157) represents Manfred's remorse for his deceased love, as well as his desire for reunion. After the encounter between the Poet and 'an Arab maiden' (A, 129), the Narrator in *Alastor* describes the Poet's pursuit of an ideal figure of woman from the Poet's dream:

... He dreamed a veiled maid
Sate near him, talking in low solemn tones.
Her voice was like the voice of his own soul
Heard in the calm of thought; its music long,
Like woven sounds of streams and breezes, held
His inmost sense suspended in its web
Of many-coloured woof and shifting hues. (A, 151-57)

Shelley employs a vision to illustrate how an ideal partner might bring delight. Byron also employs a similar narrative to demonstrate Manfred's thirst for a lost delight or, at least, a means to reduce his negative emotions, especially those of grief. Byron's dramatic design

conjures up the phantom of Manfred's beloved woman – Astarte. In this psychic scenario, what can make Manfred regain peace of mind or even delight is a reunion with Astarte and her forgiveness. In *Manfred*, the desire for delight permeates the encounter between Manfred and Astarte through his confessions. When he meets Astarte's ghost emerging from '... no living hue, / ... like the unnatural red' (*M*, II.iv.99-100), Manfred tries to reduce his sense of guilt about Astarte's death: 'Forgive me or condemn me' (*M*, II.iv.105). Prior to the ghost's disappearance, Manfred repeatedly begs Astarte's ghost for forgiveness:

MAN. Yet one word more—am I forgiven?

PHAN. Farewell!

MAN. Say, shall we meet again?

PHAN. Farewell!

MAN. One word for mercy! Say, thou lovest me.

PHAN. Manfred! (*M*, II.iv.152-57)

Manfred's expectation for Astarte's forgiveness and reunion reveals his extreme pursuit of delight. In *Alastor*, the ideal love's voice promises the Poet extreme delight. The Narrator, in *Alastor*, refers the voice of the maid as '... woven sounds of streams and breezes ...' (A, 155) and the heavenly voice works in '[the Poet's] inmost sense suspended in its web / Of many-coloured woof and shifting hues' (A, 156-57). Shelley emphasises the feeling of delight when one encounters ideal love. In *Alastor*, the Narrator points to the Poet's ultimate pursuit

of a soul mate: 'Her voice was like the voice of his own soul' (A, 153). It is clear that the voice conveys the physical existence of a being elsewhere in the space beyond the physical realm. Her voice particularly suggests those characteristics of the mind or a wholeness being. Such aspiration for love is also proved in *Alastor*, where the veiled maiden talks to the Poet in his dream: '[She] [s]ate near him, talking in low solemn tones. / Her voice was like the voice of his own soul' (A, 152-53). It is notable that voice becomes a medium to delight.⁵³

Astarte's voice is clearly a potential origin of delight for Manfred. Byron's Manfred repeatedly begs Astarte to *speak* to him. At the very beginning of the confrontation with Astarte, Manfred asks Nemesis to 'bid her speak' (M, II.iv.104) and desires again Astarte's voice: 'Astarte! my beloved! speak to me:' (M, II.iv.118). At the end, before Astarte reveals Manfred's death,⁵⁴ Manfred resumes his request: 'Speak to me! though it be in wrath;—but say— / I reckon not what— but let me hear thee once— / This once—once more!' (M, II.iv.146-48). Manfred's remorse stems from the irrecoverable loss of his beloved. Manfred's ideal delight is taken with Astarte's disappearance or tragic death. Like the Poet who discovers that verbal communications are a major source for delight, Manfred regards his beloved's voice as music: 'The voice which was my music—Speak to me!' (M, II.iv.135). Manfred recognises the significance of verbal communications as Astarte's voice conveys her entire existence: 'Say on, say on— / I live but in the sound—it is thy voice!' (M, II.iv.150-51).

For Shelley, the ideal union for delight relies on not merely sight and voice, but mutual physical intimacy. In the Poet's dream, the process of his consummation with the veiled girl is detailed in lines 172-187, but the approaching intimacy between the Poet and his ideal love is never consummated and the figure, ultimately, disappears like the phantom of Manfred's Astarte:

... He [The Poet] reared his shuddering limbs and quelled
His gasping breath, and spread his arms to meet
Her panting bosom: ... she drew back a while,
Then, yielding to the irresistible joy,
With frantic gesture and short breathless cry
Folded his frame in her dissolving arms. (A, 182-87)

This scene in the dream suggests a sexual intimacy between the Poet and the veiled girl, yet 'her dissolving arms' (A, 187) reveal the disappearance of the Poet's love. In the scene, the Poet dispels his reason and approaches the girl's 'panting bosom' (A, 184). The couple enjoy momentary romantic *love*: 'Then, yielding to the irresistible joy, / With frantic gesture and short breathless cry' (185-86). Awakening from this vision, the Poet experiences a distinct emotion – a loss of love:

Now blackness veiled his dizzy eyes, and night
Involved and swallowed up the vision; sleep,

Like a dark flood suspended in its course,

Rolled back its impulse on his vacant brain. (A, 188-91)

Shelley's symbolic language prefigures neuroscientific understandings of the mind.⁵⁵ When sleep comes, this 'flood' (A, 190), like a stream, is 'suspended' (A, 190), as Shelley puts it, and we lose consciousness. The 'vacant brain' (A, 191), in Shelley's terms, refers to unconsciousness or involuntary operations of the mind and the 'impulse' (A, 191) equates to electrical activity. With the disappearing of the veiled maid in the Poet's dream, an 'impulse' (A, 191) pours into the 'vacant brain' (A, 191) and startles the Poet into consciousness:

'Roused by the shock he started from his trance –' (A, 192). Shelley recalls Locke's notion that there is no consciousness, impression, or memory in sleep, as Locke argues:

... in the thinking of the *soul*, which is not perceived in a sleeping man, there the soul thinks apart, and making no use of the organs of the body, leaves no impressions on it, and consequently no memory of such thoughts' (*ECHU*, 2.1.15).

Shelley's metaphor relates to current scientific notions. Some experiments of sleep demonstrate the working of our body.⁵⁶ The mechanism of sleep deprives us of consciousness other than the autonomic nervous system (ANS), which works without conscious control: 'You lose muscle tone as the neurons controlling skeletal muscle movements are actively inhibited but, thankfully, the ones controlling respiration and heart

rate carry on working normally!’ (39).⁵⁷ This scientific evidence explains the relationship between consciousness and sleep and is suggestive, too, about the materiality of emotion. In other words, emotion never exists without consciousness. Eternal sleep – death – plays an important role in terminating vain desire and negative emotions, which becomes the ultimate obsession of the Poet and Manfred, who both suffer from the loss of love.

In this treatment of the subject of love, Shelley’s *Alastor* is the counterpart to Byron’s *Manfred*. While *Alastor* describes the poet-figure’s pursuit of love and imagination, *Manfred* points out a vivid tragedy after a failing relationship. In *Manfred*, Byron challenges Shelley’s idealism in love and recognises that the ‘fulfilment’ of romantic love is ultimately destructive. Prior to the episodes of the maiden in the Poet’s dream in *Alastor* and Astarte’s phantom in *Manfred*, the Arab maiden and Astarte are flesh-and-blood objects that are memorable to both the Poet and Manfred. This antithesis in Shelley’s and Byron’s love philosophy indicates a striking dichotomy between passion and reason or sense and sensibility. The philosophy of love in *Alastor* and *Manfred* is distinct. *Alastor* demonstrates Shelley’s Platonic stoicism. *Manfred* mediates on the taboo of incestuous love. The Arab maiden and Astarte are the prototype of forbidden love. The relationship with the Arab maiden relates to a religious taboo and that with Astarte refers to a moral taboo.

Alastor explores the Poet’s reason for his pursuit of ideal love. As in the epigraph to *Alastor*, Shelley quotes St. Augustine’s *Confessions* (III.i.) to illuminate his own philosophy:

‘Nondum amabam, et amare amabam, quærebam quid amarem, amans amare’ [Not yet did I love, yet I was in love with loving; ... I sought what I might love, loving to love].⁵⁸ The Poet insists on an ultimate true love compatible with his imagination: ‘Her voice was like the voice of his own soul’ (A, 153). In the Poet’s journey to Persian ruins, the encounter with ‘an Arab maiden’ (A, 129) is a decisive event that challenges the Poet’s reason:

Meanwhile an Arab maiden brought his [the Poet’s] food,
Her daily portion, from her father’s tent,
And spread her matting for his couch, and stole
From duties and repose to tend his steps:—
Enamoured, yet not daring for deep awe
To speak her love:—and watched his nightly sleep,
Sleepless herself, to gaze upon his lips
Parted in slumber, whence the regular breath
Of innocent dreams arose: then, when red morn
Made paler the pale moon, to her cold home
Wildered, and wan, and panting, she returned. (A, 129-39)

This scene relates to the myth of Cupid and Psyche.⁵⁹ Unlike Cupid’s fierce response, the Poet’s idealism suggests his gentle response to the maiden’s temptation. This idealised romantic love is all but fulfilled when the Poet ‘... dreamed a veiled maid / Sate near him,

talking in low solemn tones' (A, 151-52). In addition to the same position sitting next to the Poet, 'the veiled maid' (A, 151) relates to 'the Arab maiden' (A, 129) who wears a veil. After this unsuccessful romantic vision, the Poet persists in his wanderings and pursuit of true love and, as a result, dies in solitude. Aware that romantic love seems unattainable in *Alastor*, Shelley starts to reassess his idealism. In the Preface to *Alastor*, Shelley recognises the peril of his idealism or reason in a search for true love – 'a prototype of his conception' (SPP, 73): 'They who, ... loving nothing on this earth, ... rejoicing neither in human joy nor mourning with human grief[,] ... have their apportioned *curse*' [emphasis added] (SPP, 73). This 'curse' relates to the physical and genetic which exists not only in *Alastor* but also in *Manfred*.

Similar to the Poet's idealised love relationship, Manfred's *passion* is both a curse of the ideal and a genetic one. In the opening passage of *Manfred*, Manfred accuses nature of imbuing a curse on his mind to torment him: 'A *wandering hell* in the eternal space; / By the strong *curse* which is upon my soul, [emphasis added]' (M, I.i.46-47). The curse in *Manfred* relates to Manfred's nature, which he is born to be 'different'. Manfred complains to the Abbot about his emotional limitations and his inability to change his *nature* (scientifically, his biologically determined DNA): 'I could not tame my *nature* down; ... / ... / ... I disdained to mingle with / A herd, though to be leader—and of wolves. / The lion is alone, and so am I' [emphasis added] (M, III.i.117-23).⁶⁰ Here Manfred suggests that his tragic or genetic flaw is due to being unable to resist intimacy with Astarte. Astarte is believed to relate to Augusta

Leigh, Byron's half-sister.⁶¹ Manfred's 'cursed' characteristic is also demonstrated in Byron's personality. Byron once wrote to Augusta: '[T]he manner in which I was brought up must necessarily have broken a meek spirit, or rendered a fiery one ungovernable' (qtd. in *B&S* 8). Byron's 'meek spirit' (namely, the moral goodness) which used to be constructed by nurture is replaced by his 'fiery' and 'ungovernable' nature. This nature refers to his unconventional DNA. Byron realises that the human nature is a certain unchangeable substance which governs emotion. This incest scandal with Augusta is implicitly behind Byron's *Manfred*.⁶² During the gossip between Manfred's servants Herman and Manuel, Manfred's incest scandal is hinted at:

Count Manfred was, as now, within his tower,—

How occupied, we knew not, but with him

The *sole* companion of his wanderings

And watchings—*her*, whom of all earthly things

That lived, the only thing he seem'd to *love*, —

As he, indeed, *by blood* was bound to do,

The lady *Astarte*, his——

Hush! who comes here?

[Emphasis added] (*M*, III.iii.41-47)

In Andrew Elfenbein's reading, Manuel's unvoiced word is 'sister' ('BGS', 69). Manfred

challenges the moral code of sexuality or the morally good and endeavours to obtain optimal happiness in 'romantic love'. Prior to his servants suggesting an incestuous relationship, Manfred's ravings may confuse the Chamois Hunter, but do suggest Manfred's own guilt: 'I say 'tis blood—my blood! the pure warm stream / Which ran in the veins of my fathers, and in ours / When we were in our youth, and had one heart, / And loved each other as we should not love,' (*M*, II.i.24-27). The Hunter recognises 'some half-maddening sin' (*M*, II.i.31) from Manfred's 'strange words' (*M*, II.i.31). This undisclosed sin corrodes Manfred and brings about endless 'bitterness' (*M*, II.i.58): '... actions are our epochs: mine / Have made my days and nights imperishable, / Endless, and all alike, ...' (*M*, II.i.52-54). It is manifest that Manfred challenges forbidden love and eventually leads himself to madness and remorse, which is even worse than Shelley's Poet dying in solitude.

In *Alastor* and *Manfred*, Shelley and Byron believe that emotion ends with death. Similar to a conviction in Greco-Roman and French materialism that death is an escape of emotion, the philosophy in *Alastor* and *Manfred* conveys the connection between sleep, death, and emotion. In Lucretius's philosophy, death is conceived of as an everlasting sleep. In *Alastor*, the narrator mourns the death of '[a] lovely youth [the Poet]' (*A*, 55) on '[t]he lone couch of his *everlasting sleep*' [emphasis added] (*A*, 57). A deep sleep, however, can be seen as a temporary death. Although there are many issues related to the enigma of sleep, neuroscientists believe that sleep helps us 'reset things in the brain' when the brain stops

‘processing sensory information, or being vigilant and attentive, or having to control our actions’ (*NSB*, 40). Therefore, emotion disappears with sleep. Likewise, the Poet’s reason or repression of sexuality is loosened in his sleep until he awakens (*A*, 151-93). The Poet, nevertheless, enjoys the ‘delightful realms’ (*A*, 219) of sleep. A sound sleep is a biological or genetic mechanism that amends or recovers physical damages to the body. The Poet’s sleep reveals his desire for a consummation with the Arab maiden:

The spirit of sweet human love has sent
A vision to the *sleep* of him who spurned
Her choicest gifts. He eagerly pursues
Beyond the realms of dream that fleeing shade;
He overleaps the bounds. Alas! alas!
Were limbs, and breath, and being intertwined
Thus treacherously? Lost, lost, for ever lost,
In the wide pathless desert of dim *sleep*,
That beautiful shape! Does the dark gate of *death*
Conduct to thy mysterious paradise,
O *Sleep*? [Emphasis added] (*A*, 203-13)

In sleep, a ‘mysterious paradise’ (*A*, 212) without the restrictions of morality or reason, the Poet instead accepts the Arab girl’s ‘choicest gifts’ (*A*, 205) (her body and her purity) and

enjoys the physical intimacy and her ‘beautiful shape’ (A, 211). When awake, without real physical contact with the maiden, the Poet’s ‘brain’ (A, 221) is ‘stung’ (A, 221) and it feels like ‘despair’ (A, 222): ‘The insatiate hope which it awakened, stung / His brain even like despair’ (A, 221-22). In this sense, Shelley’s *Alastor* relates sleep to the issue of emotion. The material body is the very basis of emotion.

Byron’s *Manfred* also conveys this mechanism of sleep to suggest the materiality of emotion. Unlike death that deletes all thoughts stored in our neurons, sleep continues with the minimal signs of life through repressed self-consciousness. The Spirit tells Manfred about this mechanism of sleep and thoughts:

Though thy *slumber* may be deep,
Yet thy spirit shall not *sleep*,
There are shades which will not vanish,
There are *thoughts* thou canst not banish;
By a power to thee unknown,
[Emphasis added] (*M*, I.i.202-06)

The ‘shades’ (*M*, I.i.204), on the surface, refer to supernatural ghosts from a non-scientific worldview. In order to comprehend the mystery of the mind, Byron may relate ‘shades’ (*M*, I.i.204) to a certain substance running in the brain during sleep. Like Shelley, Byron recognises that only *death*, not a slumber, can terminate the self, ‘shades’ (*M*, I.i.204), and

‘thoughts’ (*M*, I.i.205). Such a concept is again based on a hypothesis of Greco-Roman materialism and later French materialism. In *The System of Epicurus*, the French materialist La Mettrie (1709-1751), following Lucretius’s materialist ideas, emphasises the notion that when death comes, the individual will lose sensations and consciousness and enter an everlasting ‘sleep’: ‘It is death’s opium; all the blood is inebriated by it, and the senses are dulled. We feel ourselves dying as we feel ourselves falling asleep or fainting...’.⁶³ ‘Death’, La Mettrie emphasises, ‘is the end of everything; after it, I repeat, there is a void, an eternal nothingness’ (*MMOW*, 108). At the death of the Poet in *Alastor*, a materialist concept is clearly demonstrated: ‘No sense, no motion, no divinity— / A fragile lute, ...’ (*A*, 666-67) and ‘... a dream / Of youth, which night and time have quenched for ever, / Still, dark, and dry, and unremembered now’ (*A*, 669-71). Human senses and emotions vanish with the destruction of the ‘lute’ (instrument or body) (*A*, 667). Following this materialist thinking, the modern reader may better understand how Byron, like Shelley, employs an allegorical narrative to relate to their understanding of the physical mind. In *Manfred*, the ‘shades’ (*M*, I.i.204) and ‘spirit’ (*M*, I.i.203) may be explained, in current scientific terms, as different electro-chemical substances (scientifically, brainwaves or neuro-transmitters), which remain active in the brain or mind during our sleep: ‘Though thy slumber may be deep, / Yet thy spirit shall not sleep, / There are shades which will not vanish,’ (*M*, I.i.202-04). This evolutionary mechanism that also occurs in a coma or anaesthesia helps to provide nutrition

to sustain the organism: ‘The proteins that they make help to stabilise LTP [long-term potentiation, which affects lasting changes in synaptic strength between neurons] and make it last longer’ (*NSB*, 29). Due to this physiological process, thoughts can still cling to neural networks in the brain: ‘There are thoughts thou canst not banish;’ (*M*, I.i.205). Nevertheless, Byron and Shelley alike may still thirst for the *mystery* of vitality, namely an ‘unknown’ power of life’s genesis (*M*, I.i.206). This inquiry central to Shelley’s *Alastor* also permeated Mary Shelley’s *Frankenstein* and their later works when this circle was formed in Switzerland in the summer of 1816.

In *Manfred*, Byron’s depiction of death as the end of emotion demonstrates more influence of Greco-Roman and French materialism on Byron’s philosophy. Drawing on materialist philosophy, the only way to terminate despairing ‘thoughts’, Manfred recognises is simply to end his life. Manfred believes that once he is dead, emotion will no longer torture him. Manfred responds to the Chamois Hunter who comes to his aid:

In this one plunge.—Farewell, ye opening heavens!

Look not upon me thus reproachfully—

Ye were not meant for me—Earth! take these atoms! (*M*, I.ii.107-09)

Manfred’s philosophy of ‘atoms’ (*M*, I.ii.109) reflects Greek atomism and his desire for escapism. Greek atomists believe in the mortality of the soul. In other words, death is an absolute slumber that can take away Manfred’s grief about the death of his beloved Astarte.

In addition to death or forgetfulness, madness is another way to escape emotional tortures of the self. Manfred wishes madness to cease his grief. When he meets the Witch of the Alps, Manfred complains to her about his failed invocation to the 'Daughter of Air' (*M*, II.ii.127): '... I have pray'd / For *madness* as a blessing—'tis denied me' [emphasis added] (*M*, II.ii.133-34). To Manfred, madness can help him lose self-consciousness or his 'self' and, therefore, avoid emotional sufferings. Madness is also central to later works of the Shelley circle, for example Mary Shelley's *Frankenstein* and Shelley's *Julian and Maddalo*. It is evident that the Shelley circle attempts to comprehend the mysterious substance of emotion.

A critical comparison of Shelley's *Alastor* with Byron's *Manfred* shows how both poets understand the mind in a scientific way. Byron and Shelley are fascinated by human nature, the mind and emotion from both atheistic and materialist perspectives as they endeavour to locate the origins of the self. Byron's and Shelley's investigations into emotion prefigure neuroscientific concerns, as their depictions of the mind both foreshadow later scientific developments (including neuroscience, quantum physics, and genetics) and echo early empiricism and aesthetics. More significantly, materialism is evident in their early poetic works *Alastor* and *Manfred* in which they recognise an affinity between existence and emotion. In their explorations of human emotions, Shelley and Byron embody a Romantic spirit in search of the subtlety of the human mind.

Notes

¹ The concern with emotion continually appears in this circle's later works, in particular, Mary Shelley's *Frankenstein* (1818). Further discussion of this issue will be demonstrated in my later chapters.

² Harold Bloom points out that 'Alastor ... is conventionally taken to be Shelley's first mature and valuable poem of some length'. Jerrold E. Hogle conceives of *Alastor* as 'a brilliant transition into Shelley's adult career as a major English poet'. *Manfred*, according to James Twitchell, is 'Byron's most "Romantic" work, both in character and in theme'. See Harold Bloom, *Shelley's Mythmaking*, 1959 (New Haven: Yale UP; Ithaca, NY: Cornell UP, 1969) 8; Jerrold E. Hogle, *Shelley's Process: Radical Transference and the Development of His Major Works* (Oxford: Oxford UP, 1988) 45; James Twitchell, 'The Supernatural Structure of Byron's *Manfred*', *Studies in English Literature, 1500-1900* 15.4 (1975): 601-14, 601.

³ This long poem is started 'in the fall and early winter of 1815' in the west of London and published by John Murray 'in early January 1816'. See Percy Bysshe Shelley, 'Alastor; or, The Spirit of Solitude', *Shelley's Poetry and Prose: Authoritative Texts, Criticism*, ed. Donald H. Reiman and Neil Fraistat, 2nd ed. (New York: Norton, 2002) 71. Hereafter the book is abbreviated as *SPP* and *Alastor* as *A*.

⁴ Lord Byron, *Manfred*, *Lord Byron: The Major Works*, ed. Jerome J. McGann (Oxford: Oxford UP, 1986) 275-314. Hereafter *Manfred* is abbreviated as *M*.

⁵ In order to put the mind and emotion in a physical discussion, I refer the 'human mind' to the workings of the brain and 'emotion', as defined, via physiological signals that change with environmental or 'inner' stimulants. The 'inner' here means within the neural network of the brain. Those signals are defined by language based on different situations that are experienced.

⁶ Byron has touched on the issue of emotion particularly in his work which makes him famous 'over night' – *Childe Harold's Pilgrimage* Cantos I and II (1812). Byron wrote Canto I of *Childe Harold's Pilgrimage* in 1809 and Canto II in 1810. Later John Murray published *Childe Harold's Pilgrimage I and II* in March of 1812. Hereafter *Childe Harold's Pilgrimage* is abbreviated to *CH*. More importantly, Byron points out different emotional terms to describe the changes of Childe Harold's emotions, such as 'rage', 'Jealousy', 'Rapture', 'Joy', 'Passion', and 'Pleasure' (*CH*, I.78, 81, 82, 83). See Lord Byron, *Lord Byron: The Complete Poetical Works: Volume II, Childe Harold's Pilgrimage*, ed. Jerome J. McGann (Oxford: Clarendon, 1980) 37-39. In addition to terms used in his text, Byron, in the Preface to Cantos I and II, suggests that his different styles of writing appropriately manifest the diversity of emotion, including joy and sadness. Byron quotes Dr Beattie's words to express his attempt: '... I propose to give full scope to my inclination, and [can] be either droll or pathetic, descriptive or sentimental, tender or satirical, as the humour strikes me ...' (Preface, 4). The concept of emotion has not been greatly emphasised by Byron critics with the exception of the work of She-Ru Kao and Jonathan D. Gross. Different from Kao's and Gross's reading, my account of *Manfred* centres on Byron's scientific treatment of the emotion and the mind. Both Kao and Gross, however, relate Byron's adoption of emotion to Wordsworth's phrase – 'emotion recollected in tranquillity' – in the Preface to *Lyrical Ballads* (1805). See She-Ru Kao, 'Lord Byron and His Masquerade of Emotions', Web, 22 Nov. 2008 <<http://140.117.42.17/doc/She-Ru%20Kao.pdf>>. Jonathan D. Gross, 'Recollecting Emotion in Tranquility: Wordsworth and Byron in Cather's *My Ántonia* and *Lucy Gayheart*', *Cather Studies* 7 (2007): 119-39. Before *Alastor*, Shelley started to meditate on an atheistic

worldview in his early works, including *The Necessity of Atheism* (1811), *Queen Mab* (1813), and *A Refutation of Deism* (1814). The enquiry into emotion and vitality in *Alastor* permeates Shelley's later works, for example 'Hymn to Intellectual Beauty', 'Mont Blanc', 'On Love', 'On Life', *Prometheus Unbound*, and even *The Triumph of Life*. Shelley's idealism in *Alastor* also influences Byron in *Manfred*. In *Shelley and Vitality*, Sharon Ruston completes more investigations into Shelley's knowledge of the science of life and the issue of love in a scientific realm: 'Love is not realized as simply a moral or an *emotional* force, it also has a *physical* identity' [emphasis added]. See Sharon Ruston, *Shelley and Vitality* (New York: Palgrave-Macmillan, 2005) 125. Hereafter SV. Even though she focuses on love and science (electricity), Ruston does not centre on the materiality of emotion which is conceptualised in my thesis.

⁷ The Shelley circle discussed in this thesis mainly includes the Shelleys and Lord Byron. The union of this circle at the Villa Diodati by Lake Geneva in Switzerland provides intellectual stimulations. Their ghost-story contest is particularly well-known and this event bears a literary fruit – Mary Shelley's *Frankenstein*. 'In the summer of 1816', according to Mary Shelley, 'we [the Shelleys] visited Switzerland, and became the neighbours of Lord Byron' and 'spent our pleasant hours on the lake'. See Mary Wollstonecraft Shelley, Introduction, *Frankenstein; or The Modern Prometheus*, ed. M. K. Joseph (Oxford: Oxford UP, 1969) 5-11, 6. Significantly, a Gothic genre and the image of Prometheus are shaped as this circle's common theme. Derived from Aeschylus's classical tragedy *Prometheus Bound* and *Prometheus Unbound*, Byron's 'Prometheus' was started, along with *Manfred*, in 1816. Later, Mary Shelley's *Frankenstein*, subtitled *The Modern Prometheus*, was also started for a ghost-story contest in the summer of 1816. Shelley's long poem *Prometheus Unbound* was planned in March 1818 soon after the publication of *Frankenstein* in January that year. The imagery of Prometheus refers to the circle's atheistic focus on 'mysterious' science, probably alchemy. This Faustian prototype of anti-science and anti-knowledge permeates *Alastor* and *Manfred*. Prometheus's eternal sufferings particularly reflect on emotional tortures throughout their works.

⁸ Mary Shelley, 'Note on *Alastor*', *The Novels and Selected Works of Mary Shelley*, ed. Pamela Clemit, vol. 2 (London: Pickering, 1996) 267-68, 268.

⁹ See my Note 6 related to Byron's sensitivity to human emotions in his early works.

¹⁰ Detailed comparisons between *Alastor* and *Manfred* are very limited. Lois Thurgood, Peter Cochran, and Charles Townsend contribute different philosophical views between *Alastor* and *Manfred*. Thurgood highlights both poems' literary gravity and Charles Townsend focuses on their heroes' narcissism and idealism. Lois R. Thurgood, 'The Dim Splendor: A Study of *Paracelsus*, *Alastor*, *Endymion* and *Manfred*', diss. Dalousie U, 1951. Charles Markham Townsend, 'Byron's *Manfred* and Shelley's *Alastor*: Narcissism and the Search for an Ideal', diss. Montclair State U, 2007.

¹¹ Charles E. Robinson, *Shelley and Byron: The Snake and Eagle Wreathed in Fight* (Baltimore: Johns Hopkins UP, 1976) 53. Hereafter SB.

¹² See Peter Cochran, 'Byron and Shelley: Radical Incompatibles', *Romanticism on the Net* 43 (2006), Web, 23 Nov. 2010. In *Shelley and Byron: The Snake and Eagle Wreathed in Fight*, Robinson 'contend[s] that Byron used his drama [*Manfred*] to reject the idealism with which Shelley had "dosed" him for three months in Geneva' (SB, 59). Notably, William D. Brewer continues a general inquiry into Byron and Shelley and revises Robinson's views on their relationship: '... I believe that their [Byron's and Shelley's] interchanges were generally more collaborative than oppositional'. See William D. Brewer, *The Shelley-Byron Conversation* (Gainesville, FL: UP of Florida, 1994) 3. Nevertheless, D. G. James's brief lecture on 'Byron and Shelley' (1951) may have pointed out the complicated relationship

between Byron and Shelley much earlier than critics mentioned above: 'The dogmatic optimism of the one [Shelley] and the determined pessimism of the other [Byron] were alike yoked with despair'. See D. G. James, *Byron and Shelley*, Byron Foundation Lecture (Nottingham: U of Nottingham P, 1951) 22. Hereafter *B&S*.

¹³ Earl R. Wasserman, *Shelley: A Critical Reading* (Baltimore; London: Johns Hopkins UP, 1971) 20, 21, 46-56. Hereafter *SCR*. Wasserman's dualism of the mind, for instance, good and evil, is essentially identical with Nietzsche's Apollo and Dionysus in *The Birth of Tragedy* (1872). Notably, Wasserman's 'Pan', though derived from 'Ovid's tale of Midas' (*SCR*, 46), and Nietzsche's 'Dionysian' are both based on Greek dualist philosophy and lack innovative views. In reality, Apollo, Dionysus, and Pan have their own 'passion and reason' and the binary categories become inaccurate and stereotyped. In their language game the real meaning fails to be conveyed. Nevertheless, they could fit an approximation to the polarised emotions, that is, reason and passion. Wasserman also discovers that the Narrator in *Alastor* is 'of essentially the same category [to *Queen Mab*] because both are imbued with, and defined by, the "Soul of the Universe," ...' (*SCR*, 15). Different from my concern with human emotion, Wasserman focuses his argument on Shelley's scepticism.

¹⁴ Michael O'Neill disputes Wasserman's clear-cut distinction between the Narrator and the Poet in *Alastor* and suggests the both aspects of reason and passion are present in the Poet's self. He shifts the debate of *Alastor* into 'emotions associated with the "sublime" [emphasis added]' – 'fear and awe' (14). Michael O'Neill, *The Human Mind's Imaginings: Conflict and Achievement in Shelley's Poetry* (Oxford: Clarendon, 1989) 11, 12, 14. Clark recognises the issue of the mind in *Alastor*: 'The fact that *Alastor* is about the nature of the mental processes involved in creation ... [emphasis added]'. Timothy Clark, 'Destructive Creativity: *Alastor* (1815)', *Shelley*, ed. Michael O'Neill (London: Longman, 1993) 27-42, 35. This essay is originally published in Timothy Clark's *Embodying Revolution: The Figure of the Poet in Shelley* (1989). Interested in material and language in mental activities, Karen A. Weisman examines 'aesthetic constructs' in Shelley's poetic language and argues that Shelley, in *Alastor*, uses 'metaphors' to represent an ideal but fictional vision: '... *Alastor* also evinces Shelley's apprehension that his fictional constructs do not truly correspond to anything' See Karen A. Weisman, *Imageless Truths: Shelley's Poetic Fictions* (Philadelphia: U of Pennsylvania P, 1994) 5.

¹⁵ Jerrold E. Hogle, *Shelley's Process: Radical Transference and the Development of His Major Works* (Oxford: Oxford UP, 1988) 45.

¹⁶ Evading issues of Byron's biography, particularly his liaison with Augusta Leigh, Bertrand Evans emphasises 'Manfred's remorse' in a Gothic tradition. In such a tradition, a 'Gothic villain' purifies himself through endless remorse and ends up being 'transformed [in]to [a] "Byronic" hero'. Bertrand Evans, 'Manfred's Remorse and Dramatic Tradition', *PMLA* 62 (1947): 752-73, 752, 53, 54. More recently, Andrew Elfenbein has paid some attention to emotion, in particular, sexuality (lust, passion, pleasure), to relate to Byron's works and biography: '... the gaps in *Manfred* created an atmosphere of sublime unspeakability'. Andrew Elfenbein, 'Byron: Gender and Sexuality', *The Cambridge Companion to Byron*, ed. Drummond Bone (Cambridge: Cambridge UP, 2004) 56-73, 70. Hereafter 'BGS'. Drummond Bone notes that *Manfred* focuses on the construction of the mind and influences Byron's later works (*CH* IV, *Don Juan*, and *Beppo*): 'This is a secular view of meaning, seeing life as a construct of man's own mental activity'. Drummond Bone, 'Childe Harold's Pilgrimage IV, *Don Juan* and *Beppo*', *The Cambridge Companion to Byron*, ed. Drummond Bone (Cambridge: Cambridge UP, 2004) 151-70, 151.

¹⁷ Woodman's discussion of 'sanity' and 'madness', in some way, echoes the philosophical tradition of passion and reason, as well as Wasserman's literary analysis of Apollo and Pan –

reason and passion. Woodman's point might help to develop an argument that the Shelley circle employs scientific reason to detect passion. With regard to Woodman's overview of Shelley's and Byron's works in the context of sanity and madness, see Ross Woodman, *Sanity, Madness, Transformation: The Psyche in Romanticism* (Toronto: U of Toronto P, 2005) 178-96.

¹⁸ Alan Richardson, *British Romanticism and the Science of the Mind* (Cambridge: Cambridge UP, 2001) 1. Hereafter *BRSM*. Along with his investigations into neuroscience in British Romanticism, Richardson relates the science of the mind to the philosophy of Wordsworth, Coleridge, and Keats.

¹⁹ Harold Bloom points out that Shelley intends to create myths throughout his poetry. Similar to Bloom's argument, Weisman emphasises that Shelley's intention of making fiction is mainly to achieve idealism. See Harold Bloom, *Shelley's Mythmaking* (Ithaca, NY: Cornell UP, 1969). Karen Weisman, *Imageless Truths: Shelley's Poetic Fiction* (Philadelphia: U of Pennsylvania P, 1994).

²⁰ Hogle examines Shelley's *Prometheus Unbound* and disputes Harold Bloom, who 'distinguish[es] Shelley from his most illustrious contemporaries' and 'describ[es] him as the supreme "mythmaker" among them' (167). Hogle argues that '*Prometheus Unbound* and the Shelley poems of 1819 and 1820 written out of the same demythologizing impulse, then, must now be reinterpreted as dispersions of older mythic patterns into new, iconoclastic, and constantly altered relations with one another' (171). Jerrold E. Hogle, *Shelley's Process: Radical Transference and the Development of His Major Works* (Oxford: Oxford UP, 1988) 167, 171.

²¹ Jane Austen, according to Richardson, employs 'brain-based approaches to mind and personality being aired by the materialist-vitalist debates and popularized by the phrenology movement' (302). Alan Richardson, 'Of Heartache and Head Injury: Minds, Brains, and the Subject of *Persuasion*', *British Romanticism and the Science of the Mind* (Cambridge: Cambridge UP, 2001). Rpt. in *Romanticism: Critical Concepts in Literary and Cultural Studies*, ed. Michael O'Neill and Mark Sandy, vol. 2 (London; New York: Routledge, 2005) 301-21, 302. Hereafter 'HHI'.

²² Sharon Ruston examines science in Shelley's time and his scientific metaphors and reassesses the inter-relationship between 'the physical, mental, and societal' (23). *SV*, 23.

²³ In Footnote One of Mary Shelley's *Journals* on 28 July 1816, Paula R. Feldman and Diana Scott-Kilvert point out that 'Shelley had bought Good's translation of this work [*De Rerum Natura*] on 18 April 1815'. Mary Wollstonecraft Shelley, *The Journals of Mary Shelley, 1814-1844: Volume II, 1822-1844*, ed. Paula R. Felman and Diana Scott-Kilvert, vol. 2 (Oxford: Clarendon, 1987) 121. Hereafter *JMS* Vol. 2.

²⁴ Referring to the views of Paul Turner, Phillips, Hogle, and Michel Serres, Roberts associates 'Lucretian physics' with Shelley's philosophy: 'I show how these concepts [in Serres's work] relate to Lucretian physics, and then consider some of the aesthetic implications of chaos theory and what light it sheds on the paradoxes of the atomistic society and individual'. Hugh Roberts, *Shelley and the Chaos of History: A New Politics of Poetry* (University Park, PA: Pennsylvania State UP, 1997) 249-250, 250. Hereafter *SCH*.

²⁵ Prior to 'On Life', the Shelley circle's reassessment of materialism is engendered during their alliance in Switzerland in 1816. *Frankenstein* is a representative work that helps to demonstrate the conflicts between scientific knowledge and the mind.

²⁶ C. E. Pulos, 'Discontent with Materialism in Shelley's Letters to Elizabeth Hitchener', *Modern Language Notes* 66 (1951): 476-77, 476.

²⁷ Donald H. Reiman and Neil Fraistat, in their Footnote One of 'On Life', point out that 'Shelley's fragmentary essay "On Life" grew directly from an early passage in his

Philosophical View of Reform, his longest (though finished) work in prose, and was written (late in 1819), in the back of the notebook in which he drafted that treatise ...'. Percy Shelley, 'On Life', *Shelley's Poetry and Prose: Authoritative Texts, Criticism*, ed. Donald H. Reiman and Neil Fraistat, 2nd ed. (New York: Norton, 2002) 505-09, 505. Hereafter 'OL'.

²⁸ See line 544. Percy Shelley, *The Triumph of Life*, *SPP*, 483-500, 500.

²⁹ A number of Shelley critics, including Arkady Plonitsky, have employed scientific perspectives to understand Shelley's philosophy. Different from a view on Shelley's understanding of electricity, Plonitsky's postmodern analysis employs the concept of 'quantum' or 'optics and atomic theory' to re-examine Shelley's poetry, in particular, *The Triumph of Life*. See Arkady Plotnitsky, 'All Shapes of Light: The Quantum Mechanical Shelley', *Shelley: Poet and Legislator of the World*, ed. Stuart Curran and Betty Bennett (Baltimore: Johns Hopkins UP, 1996) 263-73, 263. Hereafter 'ASL'.

³⁰ *JMS* Vol. 1, 107-08.

³¹ Lord Byron, *Byron: A Self-Portrait: Letters and Diaries 1798 to 1824*, ed. John Murray, vol. 1 (London: Murray, 1950) 176. Hereafter *SPLD* Vol. 1.

³² William D. Brewer discovers that Wordsworth influenced Byron and when meeting Shelley in Geneva, Byron conveyed Wordsworth's philosophy of Nature to him: '... Byron respected Wordsworth's "feeling of Nature," while at the same time objecting to Wordsworth's politics'. William D. Brewer, *The Shelley-Byron Conversation* (Gainesville, FL: UP of Florida, 1994) 23.

³³ In addition to his influence on Shelley, Wordsworth's influence on Byron is also notable. Jerome McGann comments on the mutual respect between Wordsworth and Byron at a dinner meeting, in the spring of 1815, arranged by Samuel Roger. See Jerome McGann, *Byron and Romanticism*, ed. James Soderholm (Cambridge: Cambridge UP, 2002) 173. After this event, the image of Wordsworth is somewhat embedded in *Manfred* and linked to the character of the Abbot of St Maurice who Manfred respects but declines to follow. In Act III of *Manfred*, Manfred articulates after the Abbot's lesson: 'Old man! I do respect / Thine order, and revere thine years; I deem / Thy purpose pious, but it is in vain:' (*M*, III.i.155-57).

³⁴ Timothy K. Casey introduces 'cybernetic humanity' into the debate of 'nature' and emphasises how philosophers (Marx, Heidegger) connect Western concepts of humanity to technological discourses. Roger Smith crosses the boundaries of biology and religion to explore the meaning of 'human nature' in history. See Timothy K. Casey, 'Nature, Technology, and the Emergence of Cybernetic Humanity', *Is Human Nature Obsolete? Genetics, Bioengineering, and the Future of the Human Condition*, ed. Harold W. Baillie and Timothy K. Casey (Cambridge, MA: MIT, 2005) 35-65. Roger Smith, *Being Human: Historical Knowledge and the Creation of Human Nature* (Manchester: Manchester UP, 2008).

³⁵ Thomas A. Shannon, 'Human Nature in a Post-Human Genome Project World', *Is Human Nature Obsolete? Genetics, Bioengineering, and the Future of the Human Condition*, ed. Harold W. Baillie and Timothy K. Casey (Cambridge, MA: MIT, 2005) 270-316, 274.

³⁶ Daniel W. McShea, 'Feeling as the Proximate Cause of Behaviour', *Where Biology Meets Psychology: Philosophical Essays*, ed. Valerie Gray Hardcastle (Cambridge, MA; London: MIT, 1999) 181-200, 197.

³⁷ The term 'temperament', according to Richardson, is reasserted in Jerome Kagan, *Galen's Prophecy: Temperament in Human Nature* (New York: Basic, 1994) 1-37, and Lawrence Stone, *The Family, Sex, and Marriage in England 1500-1800*, abr. ed. (New York: Harper, 1979) 255.

³⁸ Hereafter quotations from *Manfred* are abbreviated to *M*.

³⁹ Paul H. Fry, *Wordsworth and the Poetry of What We Are* (New Haven; London: Yale UP,

2008) 10. Hereafter WPWWA.

⁴⁰ WPWWA, 62-63.

⁴¹ Thomas Love Peacock, relating the Greek word 'Alastor' to 'an evil genius', suggests that Shelley adopts this title and points out that '[t]he poem treated the Spirit of Solitude as a spirit of evil'.

⁴² Donald H. Reiman and Neil Fraistat relate Ahasuerus to the Wandering Jew. See footnote 3, *Alastor*, *SPP*, 69-90, 89. In his own Note 14 (VII.67) to *Queen Mab*, Shelley refers Ahasuerus to a Jew who 'crept forth from the dark cave of Mount Carmel' due to his brutal denial to Jesus and then was goaded by a 'black demon' 'from country to country'. See *SPP*, 278. In fact, earlier than writing *Queen Mab* and *Alastor*, Shelley started his four-canto long poem, entitled *The Wandering Jew; or, The Eternal Avenger*, by the winter of 1809 and regards the subject of this poem as 'an imaginary personage'.

⁴³ In this myth, Prometheus steals fire from heaven and assists humans in civilisation. This fire-bringer in *Frankenstein* refers to Victor Frankenstein, who brings the spark of life to re-animation science. In the Enlightenment, science was seen as a powerful method to help humans attain optimal happiness, yet the Shelley circle increasingly recognise the limitation of science. This ethos led them to the realm of the mind and emotion.

⁴⁴ I adopt the concept of the sublime employed by Edmund Burke (1729-1797). In *A Philosophical Enquiry into the Origin of Our Ideas of the Sublime and Beautiful* (1757), Burke redefines the sublime as the opposition of the beautiful in emotion: 'Whatever is fitted in any sort to excite the ideas of pain, and danger, that is to say, whatever is in any sort terrible, or is conversant about terrible objects, or operates in a manner analogous to terror, is a source of the sublime; that is, it is productive of the strongest emotion which the mind is capable of feeling. < (sic) I say the strongest emotion, because I am satisfied the ideas of pain are much more powerful than those which enter on the part of pleasure'. Edmund Burke, *A Philosophical Enquiry into the Origin of Our Ideas of the Sublime and Beautiful*, ed. J. T. Boulton, rev. ed. (Oxford: Blackwell, 1987) 39.

⁴⁵ In religious vocabulary, God is defined as almighty. He possesses absolute intelligence. In this context, 'half-deity' suggests that human beings are inferior to God, but superior to animals.

⁴⁶ Biologically, complicated mental sufferings that occur within human beings are determined by a larger capacity for memory. Cerebral cortex and its neural network determine the capacity of memory. Although birds (swan, eagle), like animals, have emotion, their limited capacity of memory makes them 'forget' most good or bad experiences automatically. Shelley and Byron, therefore, rethink the biological superiority of humans, particularly in the context of emotion.

⁴⁷ Following Nietzsche's philosophy of 'forgetting' or nihilism, Mark Sandy focuses on the affinity of the self with history and argues 'the impossibility of possessing a total historical knowledge' is figured through the ruins of the colosseum. Mark Sandy, "'The Colossal Fabric's Form': Remodelling Memory, History, and Forgetting in Byron's Poetic Recollections of Ruins', *Romanticism and Victorianism on the Net* 51 (2008) Web, 30 January 2010.

⁴⁸ This discussion may echo Clayton Koelb's concept of philosophical and fictional rhetoric. Koelb draws on dead 'matter' and linguistic understanding in European Romantic period. See Clayton Koelb, *The Revivifying Word: Literature, Philosophy, and the Theory of Life in Europe's Romantic Age* (Rochester, NY: Camden, 2008).

⁴⁹ John Locke, *An Essay Concerning Human Understanding*, ed. Alexander Campbell Fraser, vol. 1 (Oxford: Clarendon, 1894) 121. Hereafter *ECHU*.

⁵⁰ This evidence was pointed out in Shelley's letter in 1815. According to Mary Shelley's

Journals, Shelley continues reading *An Essay Concerning Human Understanding* in 1816, 1817, and 1820. *JMS* Vol. 2, 659.

⁵¹ Recent critics (Roberts, Plotnisky) shift Shelley's works into a reading of quantum theory. My findings in *Alastor* and *Manfred* can prove their readings, yet I focus on Byron's and Shelley's ultimate concerns with humanity from a perspective of emotional science. See 'ASL'; *SCH*.

⁵² Critics who connect Shelley's works to quantum physics may obtain more evidence from *Alastor*. In this passage, Shelley suggests the physical force of thought.

⁵³ This desire for redemption relates to the individual's happiness. In religion, confessions or prayers provide means to calm the agitated mind. In psychiatry, counselling and some mild medication help the inflicted to return to 'normal'. In medicine, chemical injections and even brain surgery are used to 'remove' the bad memory clinging to the brain.

⁵⁴ The phantom of Astarte tells Manfred of his death in only one complete sentence that she articulates: 'Manfred! To-morrow ends thine earthly ills' (*M*, II.iv.152).

⁵⁵ Shelley's idea of 'a dark flood' is similar to the concept of 'stream of consciousness' – which is particularly adopted by William James (1842-1910). The condition of sleep is determined by consciousness.

⁵⁶ The Centre for Sleep and Consciousness, University of Wisconsin – Madison, is engaged in much research on sleep mechanisms and the activity of the mind. Refer to The Centre for Sleep and Consciousness, U of Wisconsin – Madison, Web, 31 Oct. 2010
<<http://www.sleepconsciousness.org>>.

⁵⁷ *Neuroscience: Science of the Brain* (Liverpool: British Neuroscience Association, 2003) 39. Hereafter *NSB*.

⁵⁸ The translation derives from Reiman and Fraistat's footnote 1 to *Alastor*. See *SPP*, 74.

⁵⁹ Like Psyche, carrying an oil lamp in an attempt to see Cupid in his sleep, the Arab girl gazes on the Poet during his slumber: 'Enamoured, yet not daring for deep awe / To speak her love:—and watched his nightly sleep, / Sleepless herself, to gaze upon his lips / Parted in slumber, ...' (*A*, 133-6).

⁶⁰ Byron uses a lion simply as a metaphor to refer to a brave, but lonely hero, yet the lion on African plains is rarely *alone* but with its company.

⁶¹ Byron's 'Alpine Journal', written from 18 September to 29 September 1816, and his few letters to Augusta Leigh reveal the connection between Augusta and Astarte. During this period, Byron, without the Shelleys' company, travelled alone and started writing *Manfred*. Byron's love and guilt towards Augusta are very similar to what Manfred expresses to Astarte.

⁶² Byron's incestuous scandal was circulated in March 1816 and during that season he separated from Lady Byron (Annabella Milbanke). He started writing *Manfred* in September 1816.

⁶³ Julien Offray de La Mettrie, *Machine Man and Other Writings*, trans. Ann Thomson (Cambridge: Cambridge UP, 1996) 107-08. Hereafter *MMOW*.

CHAPTER FIVE

A Storm of the Mind: Mary Shelley's *Frankenstein* (1818)

This chapter explores the effects of human physical appearances on the mind. In *Frankenstein*, 'feeling' and 'feelings' denote emotional operations of the mind. These storm-like emotions are mutable and overwhelming. Frankenstein recognises the existence of protean emotions before starting his creation: 'No one can conceive the variety of *feelings* which bore me onwards, like a *hurricane*, in the first enthusiasm of success' [emphasis added].¹ After his failure of creating the 'being', 'creature', or monster,² Frankenstein meditates on human emotions: 'How mutable are our feelings, and how strange is that clinging love we have of life even in excess of misery!' (*F*, 119)

Critics have investigated the relationship between materiality and aesthetics, and their inquiries provide a point of departure for my reading of *Frankenstein*. Terry Eagleton's *The Ideology of the Aesthetics* draws on Alexander C. Baumgarten's theory of cognition of 'the generalities of reason and the particulars of sense' (15) to revisit aesthetic phenomena, for instance, 'passion, imagination, [and] sensuality' (28) in the context of the body and power.³ Paul Gilmore examines the intricate relations between the mind and electricity using the concept of *the materiality of aesthetics*.⁴ Gilmore employs the term 'aesthetic electricity' to examine the connection between human consciousness and science that fascinates both Shelley and Coleridge⁵ and later between electricity and American Romanticism.⁶

The emotions in *Frankenstein* are grounded in sensations and physical appearances.⁷ A few critics have noted this emotional connection with human outer appearances or *physiognomy*.⁸ According to *The Oxford English Dictionary*, physiognomy is '[t]he study of the features of the face, or of the form of the body generally, as being supposedly indicative of character; the art of judging character from such study'.⁹ Some eighteenth-century sentimentalists, for example Laurence Sterne, Henry Mackenzie, Johann von Goethe, William Godwin, Mary Wollstonecraft, and Matthew Lewis, have explored this idea of physiognomy in their works.¹⁰ This connection between sentimentalism and physiognomy helped writers depict inner human characteristics from physical gestures, including facial expressions. Lewis – known as 'Monk' Lewis¹¹ – was an influential writer who introduced the Shelley circle to physiognomy during their residence in Switzerland in the summer of 1816. On 14 August 1816, Mary Shelley mentioned Lewis's visit at their villa, Diodati, in her *Journals*: 'Lewis comes to Diodati' (*JMS* Vol. 1, 125). Lewis's friendship with this circle and his acquaintance with Johann Caspar Lavater's systematic inquiries into physiognomy inevitably influenced the Shelleys' depictions of human faces and behaviour. In addition to Lewis, Godwin, Wollstonecraft, Goethe, Sterne, and Mackenzie all espouse sentimentalist and physiognomic notions. From Mary Shelley's *Journals*, it is clear that she had perused these sentimentalist novels written by her parents, as well as Lewis and Goethe, before drafting *Frankenstein*.¹²

As we have seen earlier, Mary Shelley's writings aligned physiological elements with states of the mind. Consequently, this chapter will focus on how *Frankenstein* is pervaded with extreme emotional responses to the human body, including the beautiful, the sublime, and the ugly. By focusing on these emotional variations, this chapter aims to disclose the innate complexities that attend these emotive responses to human physical appearances.

I. Physiological Aesthetics: The Beautiful and the Ugly

Mary Shelley's preoccupation with the materiality of emotion in *Frankenstein* draws on eighteenth-century aesthetic theories.¹³ The term aesthetics, coined by the German philosopher Alexander Baumgarten in his *Aesthetica*, combines art with science: 'Aesthetics (as the theory of the liberal arts, as inferior cognition, as the art of beautiful thinking and as the art of thinking analogous to reason) is the science of sensual cognition'.¹⁴ The theory or even materiality of beauty finds favour not only in British aesthetics but also in German aesthetics. Physiology and anatomy are widely explored in eighteenth-century art.¹⁵ Like current psychologists,¹⁶ then, aestheticians sought for a pattern of beauty within the symmetry of the human body. In *Frankenstein*, the physical beauty of the human body dominates the mind. Apart from his attempt to discover the mystery of life, Frankenstein is fascinated with the mystery of the mind. In part, a materialist viewpoint is employed to examine the beauty of the human body in *Frankenstein*.

In *Frankenstein*, Elizabeth Lavenza – Frankenstein’s cousin – and the Monster demonstrate the antithetical extremes of human physiological figures: the beautiful and the ugly. In numerous literary texts, the beautiful is not merely physical but significantly linked to human emotion. Notwithstanding moral education, the preference for the beautiful remains rooted in culture and even genes.¹⁷ One may emphasise that forms of ‘beauty’ change over time, but our subconscious preferences for the beautiful over the ugly remain a constant even if such preferences are products of our subjective taste and social conditioning. Immanuel Kant emphasises the subjectivism of the beautiful. Robin Jarvis indicates that ‘Kant sources the pleasure associated with beauty and the subject, rather than the object ...’.¹⁸ Yet, paradoxically, Kant may suggest that physical appearances determine the object’s position and destiny. Human preference for the beautiful originates in ancient Greek literature. For example, Helen epitomises beauty in Homeric epics and Greco-Roman mythology. By contrast, the Harpies, Medusa, Grendel, and Erik (the Phantom of the Opera) exemplify the ugly in mythology and literature. Their physiological features are categorised as abnormal and hideous.

In *Frankenstein*, this striking dialectic related to the importance of the physical beauty is seen in the episode of Frankenstein’s creating the Monster’s mate. The reason that Frankenstein abandons the Monster and tears the female monster’s remains to pieces is merely his disgust at ugliness and his fear of subsequent threats from this couple’s hideous

progeny. Frankenstein ponders on his second creation:

They [the Monster and his female companion] might even *hate* each other; the creature who already lived *loathed* his own *deformity*, and might he not conceive a greater *abhorrence* for it when it came before his eyes in the female form? She also might turn with *disgust* from him to the superior *beauty* of man; she might quit him, and he be again alone, exasperated by the fresh provocation of being *deserted* by one of his own species. [Emphasis added] (*F*, 114)

This ‘hate’, ‘abhorrence’, or ‘disgust’ (*F*, 114) between the Monster and his prospective mate, Frankenstein speculates, could be triggered by this couple’s deformity and hideousness.

Frankenstein suggests that the innateness of hating ugliness and loving beauty would affect both partners in this relationship even though the Monster requires a ‘hideous’ mate: ‘I [the Monster] demand a creature of another sex, but as *hideous* as myself: ... we shall be *monsters*, cut off from all the world; but on that account we shall be more *attached* to one another’

[emphasis added] (*F*, 98-99). The Monster’s desire for a harmonious relationship or family is threatened, in Frankenstein’s view, by the female monster’s affection for beautiful objects:

‘She also might turn with disgust from him to the superior beauty of man...’ (*F*, 114). In this sense, *Frankenstein* demonstrates a ‘psychology of beauty’ and the issue of physical appearances that affects or dominates human emotions. Unlike Anne K. Mellor’s analysis that reads Frankenstein’s destruction of the female monster as deprivation of ‘the female’s control

over reproduction',¹⁹ physical ugliness or deformity is understood here as the motivation for Frankenstein's destruction of the female creation. From a physiological perspective, human bodies are determined by the beholders. In other words, they are watched and then judged. The judgement between the beautiful and the ugly, though morally unjust, unavoidably derives from human emotions.

Elizabeth's beauty is discussed in physiological terms within the descriptions of her in *Frankenstein*. In *Survival of the Prettiest: The Science of Beauty*, Nancy Etcoff proposes the reciprocal relationship between beauty and social resources.²⁰ Beautiful people in this discourse obtain privileges at school, the workplace, and in the interpersonal network more than those who are less attractive or even ugly. Countless cases are cited in Sander L. Gilman's investigation into current aesthetic surgery to demonstrate the necessity of the beautiful.²¹ In his *A Philosophical Enquiry into the Origin of Our Ideas of the Sublime and Beautiful* (1759), to which the Shelleys were probably directed through Wollstonecraft's works,²² Burke employs a wide range of bodily components to illustrate the beautiful, such as proportions, colour, smoothness, physiognomy, elegance, sounds, smell and so forth.²³ Some of these attributes are particularly described as establishing a close connection between the mind and physiology. Gentle and amiable qualities, according to Burke's study of facial expressions, are part of key elements to 'form a finished human beauty' because they are closely linked with 'the softness, smoothness, and delicacy of the outward form [outer

appearance]’ (*PE*, 118).

Mary Shelley emphasises this ideal pattern of female features in the 1831 version of *Frankenstein*.²⁴ In the 1831 version, Frankenstein retraces the process of ‘finding’ a girl whom his mother desires as a daughter and delineates Elizabeth’s physical appearance:

One day, when my father had gone by himself to Milan, my mother, accompanied by me, visited this abode [a poor cot in Italy where the residents once attracted the Frankenstein couple]. She found a peasant and his wife, hard working, bent down by care and labour, distributing a scanty meal to five hungry babes. Among these there was one [i.e., the little Elizabeth] which attracted my mother far above all the rest. She [Elizabeth] appeared of a different stock. The four others were dark-eyed, hardy little vagrants; this child [Elizabeth] was thin, and very fair. Her hair was the brightest living gold, and despite the poverty of her clothing, seemed to set a crown of distinction on her head. Her brow was clear and ample, her blue eyes cloudless and her lips and the moulding of her face so expressive of sensibility and sweetness, that none could behold her without looking on her as of a distinct species, a being heaven-sent, and bearing a celestial stamp in all her features. (*HF*, 36)

It is clear that Elizabeth’s surpassing and ‘royal’ looks are the selling point which attracts the interest of Frankenstein’s mother, Caroline Beaufort, to probe into Elizabeth’s unfortunate

history. Like perfect parts assembled in a machine, Elizabeth's looks characterised by flawless hair, brow, eyes, and lips catch Caroline's attention and Caroline, as a result, therefore, 'fixe[s] eyes of wonder and admiration on this lovely girl [Elizabeth]' (*HF*, 36). In this version, Elizabeth's original 'hazel eyes' (*F*, 19) and hair 'of a rich dark auburn' (*F*, 51) are replaced by hair of 'the brightest living gold' and 'blue eyes' (*HF*, 34). These deliberate changes heighten Mary Shelley's aesthetic concern for biological rareness. Etcoff's inquiry into the phenomena of what is termed 'Blond Crazy' (*SPSB*, 127) demonstrates a wide range of discussion on biological differences and 'the purity and innocence of the standard image of the blonde' (*SPSB*, 128). Frankenstein's father, returning from Milan, also considers Elizabeth 'a child fairer than pictured cherub—a creature who seemed to shed radiance from her looks ...' and eventually 'consult[s] their village priest' about fosterage (*HF*, 36-37). With reference to the symbolic description of Elizabeth's appearance, she is pictured 'fairer than a garden rose among dark-leaved brambles' (*HF*, 36) and 'a creature who seemed to shed radiance from her looks and whose form and motions were lighter than the chamois of the hills' (*HF*, 37).

Frankenstein reveals traces of Rousseau's literary aesthetics. As in Mary Shelley's *Frankenstein*, Rousseau also pursues an ideal beauty represented by the female body. Mary Shelley read Rousseau's *Julie, or the New Heloise* (1761) from 27 June 1817 and finished it on 2 July 1817: 'Finish Julie' (*JMS* Vol. 1, 175-76, 176). Rousseau pursues ideal beauty.

Sainte-Beuve's inquiry into Rousseau's *Julie* comments on Rousseau's ultimate desire for female beauty:

Rousseau's love was neither for any living woman nor for one of those beauties of yesterday that the poet's dreams recall to life. His love was for ideal beauty, for the phantom to which he himself gave life and passion. [W]hen a real woman [an admirer of Rousseau's novel *Julie*] presented herself who had the proud daring to show him the earthly object of his ideal and to say to him: "*I am Julie,*" (sic) he did not deign to recognize her; he was almost angry with her for having hoped to substitute herself for the object of his divine dream.²⁵

Rousseau's 'divine dream' of perfected womanhood is identical to the artist's ideal notion of beauty. Imagination has the capacity to satisfy the artist's or Rousseau's passions. This idealised and imaginary beauty can instigate positive emotions in the observer, as Rousseau's female admirer destroys the image of his ideal beauty and this results in the negative emotions of Rousseau's anger.

Rousseau's ideas of education are also alluded to in *Frankenstein*.²⁶ The Monster's thoughts of educating a child echo Rousseau's *Emile; or, On Education* (1762). Mary Shelley referred to her reading of Rousseau's *Emile* in her letter in 1815.²⁷ In *Emile*, Rousseau provides various masks, lastly 'the most hideous and frightful', to stimulate a child's sensations until their assimilation or adaptation.²⁸ Unlike *Emile*, William (Frankenstein's

little brother) is too 'ill-trained' to accept the Monster's face. At the encounter between little William and the Monster, William's anger and fear destroy the Monster's expectation that children would have no prejudice against ugliness: 'Suddenly, as I gazed on him, an idea seized me, that this little creature was unprejudiced, and had lived too short a time to have imbibed a horror of deformity' (*F*, 142).

By contrast with Elizabeth (and other beautiful characters in *Frankenstein*, including Caroline, Safie, Safie's mother, and William),²⁹ the Monster falls victim to the beholder's judgement as a result of his physiological deformity. Clearly, the beautiful and the deformed shape two polarised emotions. One arouses positive feelings such as pleasure and the other negative feelings such as fear. After a series of misfortunes, the Monster recognises that his despair is caused by his 'solitude and deformity' (*F*, 95). Such physiological deformity results in unspeakable fear, disgust, or possible anger not only in literature but in real life. Philip K. Wilson states that the Elephant Man (Joseph Carrey Merrick),³⁰ 'evoke[s] feelings of *horror* and *fear* in many who gazed upon him [Merrick]' and over time is reduced only to 'a "professional freak"' even though the narrative shows 'how truly *human* he [is]'; more unbelievably, he seems to be '*a perfect baby*' but for 'an "extraordinary *mass* of flesh"' that abnormally grows from his lip [emphasis added].³¹ In *Frankenstein*, the Monster's body with its 'filthy mass' (like that of the Elephant Man) disgusts Frankenstein and causes him to change his attitude towards the Monster from compassion to 'horror and hatred': '... when I

[Frankenstein] looked upon him, when I saw the *filthy mass* that moved and talked, my heart sickened, and my *feelings* were altered to those of *horror and hatred*' (F, 99). Nevertheless, the Monster was originally conceived of as a perfect creature, as the Elephant Man was 'a perfect baby' before being afflicted by his misfortune of disfiguration. Tragically, a failure in Frankenstein's experiment brings out a series of imperfections, misfortunes, and grotesque events. Like the Elephant Man's 'human' character, the Monster's inner self is also extremely human. After listening to the Monster's story, Frankenstein especially comments on the Monster's *human* characteristic: 'His tale, and the feelings he now expressed, proved him to be a creature of fine sensations...' (F, 99). Even so, the Monster's horrifying looks never convince even the gentlest humans, for instance, even the De Lacey family, to trust him.

With regard to deformity, Francis Hutcheson (1694-1746), in his *An Inquiry Concerning Beauty, Order, Harmony, Design* (1725), seeks a universal difference between beauty and deformity and discovers that '[d]eformity is only the absence of beauty, or deficiency in the beauty expected in any species'.³² He is aware that the displeasing experience roused by the ugly or deformed is because '[o]ur sense of beauty seems designed to give us positive pleasure, but not positive pain or disgust ...' (PW, 32). Hutcheson suggests that the 'sense of beauty' (PW, 32) derives from an innate or genetic mechanism.

The origin of the Monster's misfortunes can be attributed to his creator, Frankenstein, whose dream is to create a perfect man with a great proportion and every flawless feature, yet

Frankenstein at length feels remorse for the birth of the Monster. It turns out that ‘the beauty of the dream vanished, and breathless horror and disgust filled my [Frankenstein’s] heart’ (*F*, 34). In effect, after the experiment of galvanism, the Monster’s ‘... watery eyes, that seemed almost of the same colour as the dun white sockets in which they were set, his shrivelled complexion and straight black lips’ utterly terrify Frankenstein (*F*, 34). Prior to the initial drafting of *Frankenstein* (15-16 June 1816), Mary Shelley gave birth to her daughter Clara and son William respectively on 22 February 1815 and 24 January 1816.³³ The Monster’s ‘watery eyes’ and ‘shrivelled complexion’ (*F*, 34) associate with the newborn’s conditions. Compared with the newborn’s crying shortly after childbirth, the Monster’s physical pain approximates the patient’s sufferings after surgery without the benefit of painkillers: ‘... feeling *pain* invade me [the Monster] on all sides, I sat down and *wept*’ [emphasis added] (*F*, 68). On the other hand, nervous and muscular connections and recovery also relate to the Monster’s pain and deformity.

The Monster’s ‘hellish’ ugliness, contrasted with Elizabeth’s angelic beauty, is the fountainhead of his misfortunes and the following crimes. Abandoned by his creator, the Monster continues to rouse turmoil among the human community. The Shelleys, however, explicitly state their compassion for the Monster. In her Introduction to the 1831 version of *Frankenstein*, Mary Shelley ‘bid [her] progeny [the Monster] go forth and prosper’ (*HF*, 10). In his ‘On *Frankenstein*’, Shelley makes the direct connection between the Monster’s crimes

and mistreatments: 'Treat a personal ill, and he will become wicked' ('OF', 186). In Volume 2, Chapters 3-8, Mary Shelley permits the Monster to articulate a great change in his mind and emotions. As a Romantic and advocate of liberty, Mary Shelley draws attention to the marginalisation and stigmatisation of the Monster as 'wretch', 'ugly', 'fiend', 'devil', and 'daemon'.³⁴

The Monster narrates his misfortunes from Chapter 3 of Volume 2 and commences to realise the extreme differences between his body and others'. On his first encounter with human beings, the Monster states his occurrences:

It was about seven in the morning ... I perceived a small hut.... Finding the door open, I entered. An old man sat in it, near a fire, over which he was preparing his breakfast. He turned on hearing a noise; and, perceiving me, shrieked loudly, and, quitting the hut, ran across the fields with a speed of which his debilitated form hardly appeared capable. ... his flight, somewhat surprised me. (*F*, 70)

Clearly, the old man's sudden *terror* is agitated by the Monster's hideous looks. In her investigation of 'the ugly', Denise Gigante discovers that 'when "real existence" finally does break out in the mode of the ugly, a violent reaction should be axiomatic'.³⁵ William Blake employs his advertisement to his 1809 exhibition to demonstrate 'the typically kneejerk response to the ugly' ('FUCF', 578) and concludes that on seeing '[t]he most Ugly they [the Roman Warriors] fled with outcries and contortion of their Limbs' (qtd. in 'FUCF' 579). The

effect of a solid ‘sublimity’ – or precisely an ugly figure like that of the Monster – is determined physiologically by the links between the human mind, emotion, and the body. It is evident that the reactions of the old man and the Roman warriors are physiologically identical.

The close association between the ugly and emotion is once again manifest in the Monster’s second encounter with human beings. The Monster states his misfortunes:

... the milk and cheese ... allured my appetite. One of the best of these [cottages] I entered; but I had hardly placed my foot within the door, before the children shrieked, and one of the women fainted. The whole village was roused; some fled, some attacked me, until, grievously bruised by stones and many other kinds of missile weapons, I escaped to the open country, and fearfully took refuge in a low hovel.... (*F*, 70-71)

In this event, this negative sublime is simultaneously experienced by the villagers and the Monster. Jarvis denotes that ‘Burke writes of “ideas” of pain or danger, for he makes clear that the “delight” that accompanies the sublime is cancelled if one actually feels physically threatened...’ (*RP*, 178). The villagers’ emotions greatly change from harmony to agitation. The Monster’s emotions may be stronger than the former. For the Monster, the pleasure initially caused by the smell of the milk and the cheese vanishes; instead, anguish grows in his mind.

It is obvious that the Monster's bodily ugliness prevents any further affinity with human society. Mary Shelley even suggests that it is useless despite the Monster's endeavour to master language and knowledge to 'make them [the De Laceys] overlook the deformity of [his] figure' (F, 76). Due to his blindness, the amiable De Lacey is the only one that can, initially, listen to the Monster without fear and prejudice. Wishing to be under the aegis of De Lacey, the Monster accounts for the prejudices of humans:

“‘They [humans] are kind – they are the most excellent creatures in the world; but, unfortunately, *they are prejudiced against me*. I have good dispositions; *my life has been hitherto harmless, and, in some degree, beneficial*; but *a fatal prejudice clouds their eyes*, and where they ought to see a feeling and kind friend [the Monster], *they behold only a detestable monster*.’

.....

“‘... I feel so many overwhelming terrors. *I tenderly love these friends*; I have, unknown to them, been for many months in the habits of daily kindness towards them; but *they believe that I wish to injure them*, and it is that *prejudice* which I wish to overcome.’ [Emphasis added] (F, 90)

The Monster's statement meanwhile reveals the fact of his hideous looks and, more importantly, the destructive power of this human 'prejudice' (F, 90) towards him. In reality, the crisis of the Monster's identity arises in his mind after being indirectly educated by the De

Lacey family, particularly gaining knowledge from *Paradise Lost*, *Plutarch's Lives*, and the *Sorrows of Werter*.³⁶ Identifying with Werter's sentimentalist condition and citing Shelley's lines in 'Mutability', the Monster sighs for grief:

'The path of my departure was free;' and there was none to lament my
annihilation. My person was hideous, and my stature gigantic: what did this
mean? Who was I? What was I? Whence did I come? What was my destination?
These questions continually recurred, but I was unable to solve them.' (F, 86)

These interrogations echo John Milton's lines in *Paradise Lost* when Adam is puzzled by the origin of his existence: '... Who am alone / From all eternity, for none I know / Second to me or like, equal much less' (VIII.405).³⁷ For the Monster, his hideous appearance causes his isolation from human society. Similar to Adam's loneliness, the Monster's isolation has a direct bearing on his interrogation of his own existence.

The Monster's 'fatal' ugliness eventually obstructs his acceptance by the De Laceys. As soon as other De Lacey family members return, the Monster describes the reactions of Felix, Safie, and Agatha on beholding him:

Agatha *fainted*; and Safie, *unable* to attend to her friend, *rushed* out of the
cottage. Felix *darted* forward, and *with supernatural force* tore me from his
father, to whose knees I clung: in a transport of *fury*, he *dashed* me to the ground,
and *struck* me *violently* with a *stick*. (F, 91)

Mary Shelley echoes Burkean aesthetics here. She focuses on descriptions of the emotions that are evoked by responses to adverse physical appearance, which include fainting, weakness, fear, and aggression. Despite the gentleness and amiability in this Christian family of which the Monster was convinced, they still fail to exert their self-disciplined reason and benevolence to accept their wretched friend. For his observers, the Monster's physical body is the fountainhead of danger or the sublime. As a result, the Monster's misfortunes repeatedly exemplify Burke's physiological aesthetics.

The prejudice to physical appearances, at this point, is identical to those to class, race, and gender, sex, and sexuality. Differences obstruct mutual understandings, yet the core of the problem, in one sense, is linked to the body *per se*. In this regard, the Monster's deformed body instigates great agitation in the De Lacey family. After the Monster's presence at the cottage, Felix explains to his landlords, two country gentlemen, that they can never again rent the property:

... 'we can never again inhabit your cottage. The life of my father is in *the greatest danger, owing to the dreadful circumstance* that I have related. My wife [Safie] and my sister *will never recover their horror*. I entreat you not to reason with me any more. Take possession of your tenement, and *let me fly from this place*.' [Emphasis added] (*F*, 93)

That Felix fears and worries about the other De Laceys' safety is evidence of the close

relation between the Monster's looks and a sense of underlying danger. Unfortunately, the Monster does not encounter the sensitivity advocated by Hutcheson or Kant. Hutcheson, in his *Treatise*, advocates the importance of 'acquaintance' and 'reason' (*PW*, 32): '... if upon long acquaintance [with the ugly or deformed] we are sure of finding sweetness of temper, humanity, and cheerfulness, although the bodily form [of the ugly or deformed] continues, it shall give us no disgust or displeasure ...' (*PW*, 32). Similarly, Kant's a priori reason may not be able to overcome the fear on seeing the Monster or any kind of extremely mutant species or alien. The Monster's physical appearance instigates terror and results in a kind of negative sublimity. Frankenstein, in the philosophical mode of Hutcheson or Kant, is the only one who dares to look at the Monster and listen to him. Nonetheless, his hideous progeny remains unwelcome.

Mary Shelley introduces the sublime as both aesthetically positive and negative in Volume 2, Chapter 2 of *Frankenstein*. Initially, the positive sublimity arouses great pleasure, as Frankenstein, along with his family, 'revisited the source of the Arveiron' and experienced 'sublime and magnificent scenes' (*F*, 63). At the same location, Frankenstein's emotions are changed from the positive sublime to the negative when he glimpses the appalling Monster's 'superhuman speed' (*F*, 65). The natural scenes provide positive emotions, such as joy and ecstasy, but the hideous body is the origin of negative sublimity such as is embodied by horror. When the Monster approaches him, Frankenstein describes him: '... its unearthly

ugliness rendered it almost too horrible for human eyes' (F, 65). In addition to the detestation of the villagers, the De Lacey family, and Frankenstein, the last blow that provokes the Monster's indignation can be attributed to little William. The Monster recalls this humiliating episode:

"... As soon as he [William] beheld my form, he *placed his hands before his eyes*, and *uttered a shrill scream*: I drew this hand forcibly from his face, and said, 'Child, what is the meaning of this? I do not intend to hurt you; listen to me.'

"He *struggled violently*; 'Let me go,' he cried; '*monster!* ugly wretch! you wish to eat me, and tear me to pieces – *You are an ogre* – Let me go, or I will tell my papa.'

"'Boy, you will never see your father again; you must come with me.'

"'*Hideous monster!* let me go; [m]y papa is a Syndic—he is M.

Frankenstein—he would punish you. You dare not keep me.'

[Emphasis added] (F, 96-97)³⁸

William's affinity to Frankenstein and these provocative words arouse the Monster's anger and precipitate William's death. Prior to the encounter with William, the Monster's wound from a rustic's gun, as the Monster endeavoured to rescue a drowning girl, is a definite turning point in his journey towards evil ends.³⁹ William's humiliation is simply the last

straw. Humanity, as Hutcheson advocates, does not work well in the Monster's case. The Monster's ugliness deprives him of every single opportunity to encounter friendship and wider society. The rustic's act and William's words reaffirm this rule. Burke claims that ugliness is not necessarily associated with 'a sublime idea', terror, 'unless united with such qualities as excite a strong terror' (*PE*, 119). In this sense, the Monster's extreme hideousness is closely linked to terror.

Frankenstein demonstrates a wide range of comparisons between the beautiful and the ugly from a perspective of physiological aesthetics. Burke points to further physical connections between the beautiful and those qualities of grace and sound.⁴⁰ In *Frankenstein*, the beautiful face is not the only determining factor for the domestication of Caroline, Elizabeth, or Safie. Echoing the description of Ianthe's perfect figure in Shelley's *Queen Mab*, Elizabeth's 'inner' qualities of her physical beauty are vital attributes to her body, as Frankenstein exclaims: '... I never saw so much *grace* both of *person* and *mind* united to so little pretension' [emphasis added] (*F*, 20). Therefore, the 'reunion' of the inner beauty and the outer beauty culminates in Elizabeth. Nevertheless, the beautiful characters and the Monster are caught in a whirlpool of emotions. Different from Elizabeth's sufferings, the Monster's sufferings are not only physical but psychological.

II. Emotion in Frankenstein's Sublime Science

The sublime in *Frankenstein* relates to agitated emotions and human physiology. The achievement of *Frankenstein* is reflected in the novel's mixture of aesthetic sublimity and scientific experiments. The issue of terror or fear was early explored in Greek tragedies and continues to attract eighteenth-century philosophers of the mind. Burke's aesthetics of the sublime, James T. Boulton notes, is indebted to the Bible, Longinus, and Burke's contemporaries, including John Baillie, Jonathan Richardson, John Dennis, Joseph Addison, David Hume, William Smith, James Thomson, and Abbé du Bos.⁴¹ Burke also relates the sublime to 'terrible objects' (*PE*, 39) which excite 'the strongest emotion' or 'pain' (*PE*, 39): 'I [Burke] say the strongest *emotion*, because I am satisfied the ideas of *pain* are much more powerful than those which enter on the part of pleasure' [emphasis added] (*PE*, 39). The philosophical dialectic between the mind and the brain was hotly debated in the Enlightenment and later in Romanticism. Debates over whether the mind was material or immaterial instigated debates within both Romantic and Enlightenment thought. In the eighteenth century, chief exponents of scientific empiricism were British Christian empiricists (John Locke and George Berkeley) and, later, British Christian materialists (David Hartley and Joseph Priestley) and French atheistic materialists (D'Holbach and La Mettrie).⁴² In the early nineteenth century, these philosophical debates re-emerged between John Abernethy's vitalism and William Lawrence's materialism.⁴³ Materialist science

influenced, as previously discussed, the Shelley circle more broadly and the composition of *Frankenstein* in particular.⁴⁴ The terrible object is a source of the Burkean 'sublime'. This terrible object finds its focus in my argument on the human body which can excite danger, terror, pain, or even 'the sublime'. This 'sublime body' in *Frankenstein* is a synthesis of aesthetic legacies, Gothicism, and scientific sublimity. In the Preface to *Frankenstein*, Shelley suggests that *Frankenstein* the story associates physiological writings with 'a series of supernatural terrors' to heighten the significance of 'poetry' and 'many exquisite combinations of human feeling'.⁴⁵ The eighteenth century saw frequent discussion of the relationship between the mind and the world outside, and both British empiricism and Continental rationalism sought to account for the frequently violent emotions which could arise in the individual's mind between these two phenomena.

Mary Shelley in *Frankenstein* had ample opportunity to present the sublime, from the novel's opening in Geneva to Frankenstein's residence in Ingolstadt, the episodes in the remote villages, the journeys, the Arctic wastes, and finally the confrontation between mortal and super-mortal, the latter demanding the creation of a female 'monster'. Sublimity co-exists with but struggles against the abomination of the ugly: a range of intricate emotions is the result. One interesting and original feature of Shelley's presentation of this range of emotions is the employment of the facial muscles as an index to the workings of the mind. This exercised contemporary scientists who studied facial expression and the information it

gave on mental changes. Enlightenment and Romantic writers particularly exerted the influence on the Shelleys thinking about physiology, anatomy, and galvanism. Frankenstein, in attempting the godlike feat of animation, seeks to surpass the limits of human understanding. The result is an appalling extreme of misery on the one hand and ecstasy on the other. This ambivalent emotion is at the heart of Frankenstein's radical science.

Frankenstein further elaborates upon the mechanism of emotion connected to physical muscles. A clear example of this subtle connection is revealed at the scene of the reunion between Frankenstein and his father at the Irish prison: ““My father!” cried I, while every *feature* and every *muscle* was *relaxed from anguish to pleasure*’ [emphasis added] (*F*, 125).

This physiognomic expression echoes Lavater's ‘scientific’ study of facial expressions. In his *Essays on Physiognomy* (1789-98), Lavater relates this emotional change to physiology: ‘To me it appears evident that, since excessive *joy* and *grief* are universally accompanied to have their peculiar expression ... that the *muscles* which surround the *eyes* and *lips*, will indubitably be found to be *in a different state*’ [emphasis added].⁴⁶ In this mechanism, emotion is determined by sensation or association and then affects nerves and muscles in the face. Lavater defends this *emotional* science – physiognomy – and relates it to Burkean aesthetics:

So in *physiognomy*; (sic) *physiognomonical truth* may, to a certain degree, be defined, communicated by *signs*, and *words*, as a science. We may affirm, this is

sublime understanding. Such a trait accompanies *gentleness*, such another wild *passion*. This is the look of *contempt*, this of *innocence*. Where such *signs* are, such and such *properties* reside. [Emphasis added] (*EP*, 71)

Lavater suggests that facial expressions are affected ‘by signs and words’ (*EP*, 71). This complicated mechanism of physiognomy, Lavater affirms, is based on human ‘understanding’.

In other words, the sublime is only censored by each observing mind. Like Lavater, who emphasises the innate ‘properties’ or *emotion* from facial expressions (*gentleness*, *passion*, *contempt*, *innocence*),⁴⁷ this irresistibly innate or genetic mechanism of emotion⁴⁸ is demonstrated when Frankenstein recognises that Stoic reason looks at death positively, but fails to remove his extreme of negative emotions in bereavement:

Those maxims of the Stoics, that death was no evil, and that the mind of man ought to be superior to despair on the eternal absence of a beloved object, ought not to be urged. Even Cato [Antagonist of Caesar and notable Stoic]⁴⁹ wept over the dead body of his brother. (*F*, 46)

This ‘despair on the eternal absence of a beloved object’ (*F*, 46) refers to Frankenstein’s grief for William’s death. Death, in Burke’s concept of the sublime, instigates the strongest ‘pain’ (*PE*, 39) and is conceived of as the ‘king of terrors’ (*PE*, 40). Echoing these ideas about physiognomy and aesthetics, Mary Shelley suggests that this overwhelmingly destructive emotion or sublimity is innate: ‘Even Cato wept over the dead body of his brother’ (*F*, 46).

This innate principle of grief is later explained in Charles Darwin's evolutionism.⁵⁰

Bereavement is a major factor that causes the sentiment of grief and this emotion is thoroughly depicted in Mary Shelley's description of physiognomic expressions. Death suggests the termination of vitality as well as attachment to one's beloved, as earlier expressed in the Stoic claim of 'the eternal absence of a beloved object' (*F*, 46). The murder of William by the Monster demonstrates the Monster's understanding of this sublime emotion caused by bereavement: '[T]his *death* [of William] will carry *despair* to him [Frankenstein], and a thousand other *miseries* shall *torment* and *destroy* him' [emphasis added] (*F*, 97). The death of William first strikes the Frankenstein family and brings them a profound feeling of grief. In this tragic event, Mary Shelley touches on physiognomy in connection with emotion. In the letter to Frankenstein, Alphonse (Frankenstein's father) describes Elizabeth and her physiological responses on William's death, including an exclamation with clasping hands, a faint, and then continually weeping: 'She fainted, and was restored with extreme difficulty. When she again lived, it was only to weep and sigh' (*F*, 45). These physiognomic images, transferred to Frankenstein through Alphonse's language, reflect the state of Elizabeth's mind or her emotion. These genetic responses to bereavement are detected from physical gestures, particularly facial expressions. Mary Shelley heightens this mystery of the mind and its destructive power from bereavement when Frankenstein faces the execution of Justine Moritz, the beloved maiden in the Frankenstein family:

Nothing is more painful to the human mind, than, after the feelings have been worked up by a quick succession of events, the dead calmness of inaction and certainty which follows, and deprives the soul both of hope and fear. Justine died.... (F, 59)

Further cases of the deaths of Justine, Elizabeth, Clerval, and Alphonse, as well as the destruction of the female monster's body, all arouse this kind of negative emotion in the victims' dependents.

This emotion of bereavement or general grief in *Frankenstein* is repeatedly illustrated as relating to physiognomy. At this critical moment, Frankenstein's emotion changes from joy to grief. Frankenstein's joy was originally *activated* – from his gloom in the malfunctioning creation of the Being or later the Monster – by the reunion with his best friend, Henry Clerval. This dramatic change of physiognomy is observed by Clerval, though recollected by Frankenstein: 'Clerval, who had watched my *countenance* as I read this letter [from Alphonse about William's death], was surprised to observe the *despair* that succeeded to the *joy* I at first expressed on receiving news from my friends' [emphasis added] (F, 46). This 'countenance' is like a screen that displays Frankenstein's emotions or the changes of the mind, such as 'despair' and 'joy'. According to physiognomy, facial expressions convey the operations and emotions of the mind.

Mary Shelley's understanding of physiognomy derives from eighteenth-century

sentimentalism and this physiognomic concept is widely applied in *Frankenstein*.

Anticipating Lavater's inquiries into physiognomy, Burke briefly points out the physical connection between the face and the mind in 'The Physiognomy': '... the *countenance* ... is capable of joining the effect of certain agreeable qualities of the *mind* to those of the *body*' [emphasis added] (*PE*, 118). In *Frankenstein*, Mary Shelley employs this term physiognomy to illustrate the emergence of Burke's alleged 'certain agreeable qualities of the mind to those of the body' (*PE*, 118). This term is adopted to depict Frankenstein's impression or judgement on his two tutors at Ingolstadt – M. Krempe and M. Waldman:

I attended the lectures, and cultivated the acquaintance, of the men of science of the university; and I found even in M. Krempe a great deal of sound sense and real information, combined, it is true, with a *repulsive physiognomy* and *manners*, but not on that account the less valuable. In M. Waldman I found a true friend. His *gentleness* was never tinged by dogmatism; and his instructions were given with an *air of frankness and good nature*, that banished every idea of pedantry. It was, perhaps, the *amiable character* of this man that inclined me more to that branch of natural philosophy which he professed, than an intrinsic love for the science itself. [Emphasis added] (*F*, 29)

Frankenstein's emotions are determined by his professors' physical traits, including facial expression and manners. Mary Shelley explains how one's mind or attitude determines his or

her outer behaviour or physiognomy. More importantly, this outer behaviour affects the perceiver's mind and the mind again dominates human physiognomy. This observation of human faces is also seen in the encounters between Walton and Frankenstein, as well as Frankenstein and the Monster. The world, according to Mary Shelley's observation in *Frankenstein*, is composed of changing emotions (what we understand now as the neural mind) which derive from the facial expressions (the physical body) of those characters in this novel. Grief, sadness, sorrow, or despair are overwhelming emotions which Mary Shelley strives to examine. This sentiment, as previously discussed, is heightened in both Shelley's *Alastor* and Byron's *Manfred* written around the same time as Mary Shelley's composition of *Frankenstein*. In her 1831 Introduction to *Frankenstein*, Mary Shelley suggests that this negative emotion in German ghost stories enlightens her about the human mind: 'Eternal sorrow sat upon his [the miserable Frankenstein's] face ...' (HF, 7).

The sublime, the human body, and nervous mechanism presented in *Frankenstein* can be associated with Burkean aesthetics. Aside from the influence of physiology or specifically galvanism on *Frankenstein*, physiological aesthetics also bear on this discussion of the sublime in this novel. Burke is a major aesthetician who advocates the materiality of aesthetics. He obtains knowledge in relation to the body and the mind from British empiricism and attempts to relate the sublime to human sensations. Different from early writers, Burke focuses his sublimity on the destructive side – terror. The sublime, according

to him, is the mystery of human feelings and emotions but can be detected through bodily experience. Such a perspective is also introduced into present mainstream brain studies.⁵¹

Ugliness, according to Burke, can be called ‘the sublime’ if it is capable of exciting ‘a strong terror’ (*PE*, 119). Burke tends to explain the reactions of the mind, maybe emotions, from a physiological perspective. Fear or terror can affect our bodies to react as if we suffer from pain. As Burke describes, the moment a man suffers great pain, his teeth [are] set, his eye-brows are violently contracted, his forehead is wrinkled, his eyes are dragged inward, and rolled with great vehemence, his hair stands on end, the ‘voice is forced out in short shrieks and groans, and the whole fabric totters’ (*PE*, 131). The main reason is that the individual is aware of potential danger. This danger, as Burke claims, is equivalent to a sublime body that causes ‘terror’ (*PE*, 39).

Terror is a significant aspect of the sublime that Mary Shelley endeavours to delineate in *Frankenstein*. The dissemination of galvanism aroused eighteenth-century scientists’ passion for the mystery of life and subsequent treatment for manic depression throughout Europe. Galvanism, though not yet explicitly mentioned until the 1831 version, was inevitably discussed at the Shelley circle’s conversations and stimulated Mary Shelley’s scientific imagination. In fact, the Shelleys would have been aware of contemporary galvanic experiments from Davy, Lawrence, Byron, and Godwin.⁵² It suggests that the Shelleys were aware of this galvanic trend during their writing of *Frankenstein*. In her 1831 Introduction,

Mary Shelley thought herself ‘a devout but nearly silent listener’ (*HF*, 8) between Byron and Shelley. Even so, she learned of ‘various philosophical doctrines’ and ‘the nature of the principle of life’ (*HF*, 8), as well as recent scientific galvanic experiments.

On the one hand, experiments on decapitated frogs led scientists (including Alexander Stuart, Johann G. Zimmermann, George Prochaska, and Luigi Galvani) to localise the relations between nerves and muscles. With the help of a Leyden jar and through animal experiments, Galvani postulates that the brain is the fountainhead of electricity and later confirms the existence of *animal electricity*.⁵³ Unlocking the mystery of organic life leads Giovanni Aldini (1762-1834), Galvani’s nephew and follower, to execute further experiments on human and animal bodies throughout Europe. Apart from Aldini’s public experiment on a newly killed dog with electricity in London,⁵⁴ the most sensational, however, was performed on the hanged criminal George Forster at the Royal College of Surgeons in London on 17 January 1803, recorded in *The Medical and Physical Journal* (1803):

The subject of the experiments [namely, Forster] was a malefactor executed at Newgate, on the morning of the 17th of January last. The body was exposed a whole hour in a temperature of about 30°, after which it was delivered to the College of Surgeons ... and was transferred to Prof. Aldini....⁵⁵

Like the electrified dog, Forster’s body, after an electrified arc was transmitted to his mouth and one of his ears, soon brought about dramatic changes, as illustrated by the way that: ‘...

the jaw immediately began to quiver, the adjoining muscles were horribly contorted, and the left eye actually opened' ('PAGE', 383). Aldini's experiments proved the close relations between terror, the mind, and physiology that Burke articulated. After galvanic impulses on the assembled body, Forster-like physical responses are demonstrated in Frankenstein's laboratory: '... I [Frankenstein] saw the dull yellow eye of the creature open; it breathed hard, and a convulsive motion agitated its limbs' (*F*, 34). This experiment helps explain Lavater's argument about physiognomy, in which he proposed facial nerves and muscles control facial expression. This galvanic science exemplifies the subtle connection between the human body and the sublime. In this context, arguably Forster's corpse and the Monster's body exemplify how the body can be sublime.

Terror and disgust caused by the ugly seizes Frankenstein and human community in the novel; however, Frankenstein's fear of the Monster's sublime body is distinct from the reactions to the Monster's observers. Frankenstein's training in physiology and anatomy assist him in combating the extremely unbearable terror and disgust from blood, dissection and rottenness. Even so, his creation turns out a hideous wretch instead of a perfect being. It is even worse than 'a mummy' (*F*, 35) and causes Frankenstein only terror, disgust, and revolting fear. Those complicated emotions for Frankenstein are approximate to the pangs of conscience. The horrifying Monster is the cause of Frankenstein's 'pangs of conscience' and sense of guilt. This kind of terror is vividly transformed into Frankenstein's dream in which

his 'beloved', Elizabeth, is bizarrely linked with an unpleasant first kiss, the embrace of his mother's corpse, and grave-worms:

... I slept indeed, but I was disturbed by the wildest dreams. I thought I saw Elizabeth, in the bloom of health, walking in the streets of Ingolstadt. Delighted and surprised, I embraced her; but as I imprinted the first kiss on her lips, they became livid with the hue of death; her features appeared to change, and I thought that I held the corpse of my dead mother in my arms; a shroud enveloped her form, and I saw the grave-worms crawling in the folds of the flannel. I started from my sleep with horror; a cold dew covered my forehead, my teeth chattered, and every limb became convulsed.... (*F*, 34-35)

This emotion of fear, though experienced in Frankenstein's dream, is again suggestive of Burke's physiological aesthetics.⁵⁶ This fear caused by the nightmare overwhelms Frankenstein's body: '... my teeth chattered, and every limb became convulsed...' (*F*, 34-35). Like the terrified bystander at Aldini's galvanic experiment, Mary Shelley conveys this torture of the mind through sensory stimulations even within the dream. Terror sneaks into Frankenstein's dreams even when he thinks of himself as a 'man of reason' and the Enlightenment and appreciates the importance of 'a calm and peaceful mind' and the close relationship between 'bodily exercise' and the relaxation of the mind (*F*, 55, 58, 59, 197). Such terror continues to haunt him in his journeys of hunting down the 'fiend' – the Monster.

Like rational physicians (for instance, Aldini), Frankenstein as a rational scientist is never terrified by corpses even though the event of death usually triggers within him unspeakable terror. Frankenstein's 'scientific' reason is seen in the processes of deserting the 'remains of the half-finished' female monster and eventually disposing of them in the sea (*F*, 118). His fear does not originate from the lifeless corpse but the 'murder' that might be disclosed by the horrified peasants. The depictions of corpses conjure up ghostly displeasure and terror to the ordinary observer. For Frankenstein, deeper terror comes from his sense of guilt and the Monster's threat – 'I shall be with you on the wedding-night' (*F*, 116).

The complex mechanism of emotions entwined with the physical body finds its origin in classical mythology. As the title *The Metamorphoses* suggests, Ovid attempts to relate various 'transformations' of human bodies. The horsemen Centaurs, the one-eyed giants Cyclops, the 'tree woman' Daphne, and the reanimated man Pelops all derive from Ovid's imagination. Nevertheless, those myths and bodily changes reflect partly human desire and partly physical mechanism. Mary Shelley's acquaintance with Ovid's *Metamorphoses* was noted from her Journals dated in the spring of 1815.⁵⁷ In Ovidian mythology, Pygmalion's desire for a perfect 'woman' or, originally, an ivory statue can be read as a precursor of Frankenstein's 'creature'. The Ovidian myth of Pygmalion's ivory maiden derives from mythological imagination in which Venus (Aphrodite) is the agent of vitality. The transformation from the want of vitality is completed in Ovid's account: 'She [the statue]

seemed warm ... at his touch the ivory lost its hardness, and grew soft It was indeed a human body!’⁵⁸ The main elements are, however, theology and desire. The beauty of the ivory maiden derives from Pygmalion’s artistic skill in sculpture. The statue is created to dispel Pygmalion’s loneliness or generally negative emotion: ‘Pygmalion ... called it his bedfellow’ (*MO*, 232). *Frankenstein*’s sublime science, with bloody horrors, is indebted to the reassembling of Pelops’s body. Pelops’s missing left shoulder, ‘from between his neck and upper arm’ (*MO*, 145), denotes a kind of deformity. His ‘ivory’ shoulder is, therefore, a case of implantation or prosthetic which exemplifies the body as mechanistic.⁵⁹ Not grounded in science, such an implant is merely the perfect handiwork of Vulcan (Hephaestus), god of fire and craftwork. The bodily re-assembling of Pelops is for the sake of bodily wholeness, which is a basic desire which enables the individual to mingle with their human fellows. That is to say, deformity or ugliness tends to trouble the individual. Frankenstein’s Monster is the case of a wretch who suffers from physical imperfection. Unlike reconstructive surgery through medical technology, Pelops’s reconstructive ‘surgery’ is assisted by supernatural powers instead of medical expertise.

The motif of physical ugliness in *Frankenstein* finds other counterparts elsewhere in mythology. The Monster’s self understanding of his physical ugliness in the reflection echoes the Shelleys’ acquaintance with John Milton’s *Paradise Lost* and Ovid’s *The Metamorphoses*. The Monster reads *Paradise Lost* and sorrows for the stark differences between his physical

appearance and Adam's: 'But *Paradise Lost* excited different and far deeper emotions. ... He [Adam] had come forth from the hands of God *a perfect creature...*' [emphasis added] (*F*, 87). The motif of self-reflection designates the tension of physical appearances. Through the reflection in the pool, the Monster eventually understands the origin of his perceivers' disgust as well as his own self-hatred:

... how was I *terrified*, when I *viewed myself in a transparent pool!* At first I started back, *unable to believe* that it was indeed I who was reflected in the mirror; and when I became fully convinced that *I was in reality the monster* that I am, *I was filled with the bitterest sensations of despondence and mortification.* Alas! I did not yet entirely know *the fatal effects of this miserable deformity.*

[Emphasis added] (*F*, 76)

In contrast with the Monster, Milton's Eve gazes on her beautiful reflection 'with vain desire' (*PL*, IV.466): 'What there thou [Eve] seest fair creature is thyself' (*PL*, IV.468).⁶⁰ The pool reflects Narcissus's self-indulged beauty and the Monster's self-loathed ugliness. They, however, experienced the same emotion – grief. Unlike Narcissus's self-love, the Monster's hatred for his hideous reflection is explained by what is called physiological aesthetics.

The motif of self-reflection in *Frankenstein* is also indebted to Ovid's one-eyed giant Polyphemus, one of the Cyclopes.⁶¹ Like Frankenstein's gigantic monster, who appreciates beautiful beings, Ovid's Polyphemus pursues the beautiful nymph Galatea and expresses his

humanity: 'But if you knew me well, you would regret having fled...' (*MO*, 306). Like Mary Shelley's Monster, Ovid's Giant sees his 'ugly' reflection in the pool. Probably because of his pride in being the son of Poseidon, Polyphemus does not abhor his 'ugly' image: '... quite recently *I saw my reflection* in the clear water, and *I liked what I saw*. See how big I am!' [emphasis added] (*MO*, 307). He instead beautifies his loathsome 'deformity' and reinforces his physical advantages in order to pursue Galatea:

... Jupiter is no bigger than I. Luxuriant locks hang over my rugged features, and shade my shoulders like a grove. And *you must not think me ugly* because my body is covered with thick bristling hair.... I have but one eye, in the middle of my forehead, but it is the size of a huge shield. Think, does not the great sun in heaven see all this world of ours? And yet the sun had just one eye. [Emphasis added] (*MO*, 307-08)

The Giant's experience of wooing young women is also seen in *Frankenstein*, especially in the 1831 version. The Monster expresses his romantic sentiments to the sleeping Justine:

"Awake, fairest, thy lover is near – he who would give his life but to obtain one look of affection from thine eyes: my beloved, awake!" (*HF*, 145). The Monster starts to fear any eye contact with Justine: 'The sleeper [Justine] stirred; a thrill of terror ran through me' (*HF*, 145). This 'timidity' or anxiety about horrifying the human observer explains why

Polyphemus recites his romantic love to Galatea from a hiding place.⁶² This is evidenced in

Burke's view of the sublime. Burke relates the 'large and gigantic' (*PE*, 157), for example 'Polyphemus' (*PE*, 158), to 'the sublime' (*PE*, 157) and sees this unwanted giant as an object alienated from love: 'The large and gigantic, though very compatible with the sublime, is contrary to the beautiful. It is impossible to suppose a giant the object of love' (*PE*, 157).

The Shelleys' philosophy demonstrates their futuristic vision. Shelley advocates the significance of science and his futuristic vision: 'Science has done something and will do more [...] *In another century or two* we shall make a beginning: at present we are playing the game of blind man's buff, *struggling to clutch truth*' [emphasis added].⁶³ Indeed, after nearly two centuries since Shelley's own time, our science has significantly evolved. This 'truth' that Shelley 'struggl[es] to clutch' has been reflected in the pursuit of vitality and beauty in *Frankenstein*. Frankenstein's science is not merely to animate a creature but a perfect one: '... I [Frankenstein] had selected his [the Monster's] features as beautiful' (*F*, 34). This creation fantasy derives from Shelley's preoccupation with science, vitality, and aesthetics. Shelley's 'On a Future State' (1815) investigates the physicality of 'being', life, or existence. For Shelley, this materiality is evidenced by the necessity of sensations in *life*. *Frankenstein* continues to disclose this physicality of feelings through sensations.

The production of a new human in *Frankenstein* is not merely a creation but an unsuccessful (re-)birth of a beautiful body. At this stage of the 'science of art', the desire for beauty is involved in a mechanical production and human perceptions. In Gilman's

investigations, ‘the beautiful is the symmetrical, the regular, and the proportioned’, all of which are originally derived from the assertion of Albrecht Dürer.⁶⁴ ‘[T]he facial angle and the nasal index’ of the Dutch anatomist Petrus Camper and the ‘canon of beauty’ of the German sculptor Johann Gottfried Schadow represented the eighteenth-century aesthetic criteria of the human face and were adopted by cosmetic surgeons.⁶⁵ Different from those elements in mythology, the modification of physical beauty becomes attainable with the rise of aesthetic surgery or other beauty technologies. The desire for beauty in *Frankenstein* is, therefore, satisfied by later scientific analyses and productions.

Different also from a Frankensteinian disaster of creating a hideous ‘monster’, the beauty industry seeks to attain the extreme beauty of the body from imagination to reality. With the popularity of the beauty industry throughout the world, the issue of ‘artificial beauty’ becomes hotly debated. Artificial beauty has been pursued since ancient times. Aside from modern ‘art’ or avant-gardism, which tends to challenge the form of ‘beauty’ or *art*, human beauty in a traditional idea is perfected through the imagination in classical paintings and sculptures. Greek sculptures, especially those of Michelangelo, are seen as ideal standards of beauty to aestheticians and cosmetic surgeons. In the realm of the arts, literature demonstrates imaginary beauty through words, music through sounds, paintings through two-dimensional illustrations, and sculptures through three-dimensional moulding. In reconstructive or aesthetic medicine, such imagined beauty gradually becomes more realistic.

In the post-industrial age, reconstructive surgery is the practice of human desire for beauty or for wholeness. Distinct from mythical imagination and science fiction fantasy, technological practices denote the significance of science. Grafting, for example, of facial transplants, has announced medical progress and brought about controversy.⁶⁶ In the beauty industry, medical technologies fulfill the imaginations from myth and science fiction. Even so, this beauty science is not less sublime than the galvanic science of *Frankenstein*. Human desire for beauty and happiness has fuelled the rise of the beauty industry. Similarly, ‘artificial beauty’ through surgery attempts to access those social advantages that tend to be given to beautiful people. Deidre Lynch astutely notes that this aesthetic judgement and prejudice existed in the eighteenth century and is a prejudice which continues into the present:

A face indexed character: a social norm, a determinate place on the ethical map where every person had a proper place and where distinction was contained within limits. Recognizing a face, or putting a name to a face, was thus an allegory for what eighteenth-century philosophy of mind valued as the most basic cognitive operation, that of discriminating and weighing sameness and differences.⁶⁷

Lynch’s inquiries into the face in the eighteenth century recall Burkean aesthetics and exemplify the ‘rank’ of the human face in *Frankenstein*. *Frankenstein* discloses this anxiety

about and desire for physical beauty and resonates with early science of beauty and human emotions.

Frankenstein's interest in the materiality of emotion and the relationship between physical beauty and emotions persist in present medicine, physiology, and psychology. The Monster's case discloses universal prejudices to deformity and ugliness and prefigures much later practices of aesthetic surgery. In real life, any form of deformity or ugliness, though part of it is stereotyped by culture and society, continues to influence human judgements about physical appearances.⁶⁸ Traditionally, prosthetics (a medical study of bodily wholeness) is regarded as an easy alternative to meet their demands. Given this pursuit of wholeness and the perfected body beautiful, it is understandable that cosmetic surgery, marketed in early twentieth-century America, has become a current craze throughout the world. It is believed that through bodily modifications (either for cosmetic purposes or surgical necessity) a new sense of self can emerge which, on occasions, subverts the concept of reality or 'natural' beauty. In *Frankenstein*, Mary Shelley highlights the significance of physical appearances within a network of social interactions, but also reminds her readers that outward perfected beauty is no guarantee of inward spiritual wholeness or psychological well-being. For all the Monster's suffering and torment, as a result of his physical appearance, we as readers are still reminded of the inner beauty of mind and soul that is imprisoned within in his monstrous form.

¹ All quotations of *Frankenstein* (1818) come from J. Paul Hunter's edition. Mary Shelley, *Frankenstein: The 1818 Text, Contexts, Nineteenth-Century Responses, Modern Criticism*, ed. J. Paul Hunter (New York; London: Norton, 1996). Hereafter this book is abbreviated to *Frankenstein* and *F* for the source of reference followed by a page number. See *F*, 32.

² In his 1817 review on *Frankenstein*, Shelley calls the Monster the 'Being'. See Percy Shelley, 'On *Frankenstein*', *Frankenstein*, 185-86, 186. Hereafter 'OF'. In *Frankenstein*, Frankenstein calls the Monster 'the being' or 'the creature'. See *F*, 98, 114. The term 'the monster' is, however, used by Frankenstein, the 'Being' himself, and some critics. Hereafter I adopt 'the Monster' to emphasise his monstrous body and identity.

³ For details, see Section 1, 'Free Particulars'. Terry Eagleton, *The Ideology of the Aesthetic* (Oxford: Blackwell, 1990) 15-28.

⁴ Paul Gilmore, 'Romantic Electricity, or the Materiality of Aesthetics', *American Literature* 76.3 (2004): 467-94. Hereafter 'RE'.

⁵ 'RE', 476.

⁶ Paul Gilmore, *Aesthetic Materialism: Electricity and American Romanticism* (Stanford: Stanford UP, 2009) 1-18.

⁷ Recently James C. Hatch has noted the effects of emotion, particularly shame, disgust, and sympathy in this novel and examined how *Frankenstein* reflects on Enlightenment philosophy (Adam Smith). Different from my focus on the materiality of emotion, Hatch approaches psychoanalysis. See James C. Hatch, 'Disruptive Affects: Shame, Disgust, and Sympathy in *Frankenstein*', *European Romantic Review* 19.1 (2008): 33-49.

⁸ Like the trendy studies of physiognomy in the late eighteenth century and later in the nineteenth century, physiognomy has again been revived by recent researchers in literature, history, and culture. See Denise Gigante, 'Facing the Ugly: The Case of *Frankenstein*', *ELH* 67.2 (2000): 565-87. Jacqueline Foertsch, 'The Right, the Wrong, and the Ugly: Teaching Shelley's Several Frankenstein', *College English* 63.6 (2001): 697-711. Scott J. Juengel, 'Face, Figure, Physiognomics: Mary Shelley's *Frankenstein* and the Moving Image', *Novel* 33.3 (2000): 353-76. Lucy Hartley, *Physiognomy and the Meaning of Expression in Nineteenth-Century Culture* (Cambridge: Cambridge UP, 2001). Hereafter *PME*. Peter Melville Logan, 'Imitation of Insanity and Victorian Medical Aesthetics', *Romanticism and Victorianism on the Net* 49 (2008), Web, 30 January 2010. Noel Jackson, *Science and Sensation in Romantic Poetry* (Cambridge; New York: Cambridge UP, 2008).

⁹ Out of two categories concerning physiognomy, I select this wider definition of physiognomy (I.1.a.), which does not merely include '[a] person's facial features or expression' (II.3.a). 'Physiognomy', *The Oxford English Dictionary*, Web, 24 Oct. 2010.

¹⁰ For part of my source, see John Graham, 'Lavater's Physiognomy in England', *Journal of the History of Ideas* 22 (1961): 561-72.

¹¹ His nickname was given because of Lewis's renowned novel *The Monk: A Romance*. The Shelleys read this Gothic novel from 22 September 1814: '... Shelley draws & Mary reads the monk all evening'. See Mary Wollstonecraft Shelley, *The Journals of Mary Shelley, 1814-1844 Vol. 1: 1814-1822*, ed. Paula R. Feldman and Diana Scott-Kilvert (Oxford: Clarendon, 1987) 28. Hereafter *JMS* Vol. 1.

¹² *JMS* Vol. 2, 631-84, 649, 650, 661, 679, 684.

¹³ Nancy Fredricks's 'On the Sublime and Beautiful in Shelley's *Frankenstein*' focuses her Kantian feminist reading of *Frankenstein* on the beautiful and the sublime. Fredricks emphasises the significance of Kantian aesthetics on ethics and politics, but instead I employ

Burke's empiricist aesthetics to examine the universality of physical responses and emotional changes in the face (both the beautiful and the ugly). For further discussions of the beautiful and the sublime refer to Nancy Fredricks, 'On the Sublime and Beautiful in Shelley's *Frankenstein*', *Essays in Literature* 23.2 (1996): 178-89. Hereafter 'OSB'.

¹⁴ Quoted in Kai Hammermeister, *The German Aesthetic Tradition* (Cambridge: Cambridge UP, 2002) 7.

¹⁵ William Hogarth, *The Analysis of Beauty*, ed. Ronald Paulson (New Haven: Yale UP, 1997). Johann Joachim Winckelmann, *Reflections on the Painting and Sculpture of the Greeks* (London: Routledge; Thoemmes, 1999).

¹⁶ Gillian Rhodes, 'The Evolutionary Psychology of Facial Beauty', *Annual Review of Psychology* 57 (2006): 199-226, 201.

¹⁷ Nancy Etcoff, *Survival of the Prettiest: The Science of Beauty* (London: Little, 1999) 3-7, 69-74. Hereafter *SPSB*.

¹⁸ Robin Jarvis, *The Romantic Period: The Intellectual and Cultural Context of English Literature, 1789-1830* (London: Pearson, 2004) 180. Hereafter *RP*.

¹⁹ Anne K. Mellor, 'Possessing Nature: The Female in *Frankenstein*', *Frankenstein*, 274-86, 274.

²⁰ See *SPSB*.

²¹ Sander L. Gilman, *Creating Beauty to Cure the Soul: Race and Psychology in the Shaping of Aesthetic Surgery* (Durham, NC: Duke UP, 1998). Hereafter *CBCS*.

²² In 'A Letter to the Right Honourable Edmund Burke' (1790), Wollstonecraft expresses her dislike of Burke's *Enquiry Concerning the Origin of Our Ideas of the Sublime and Beautiful*. See Mary Wollstonecraft, *A Vindication of the Rights of Men; with A Vindication of the Rights of Women, and Hints* (Cambridge: Cambridge UP, 1995) 46-47.

²³ See Part III of Burke's *Enquiry*. Edmund Burke, *A Philosophical Enquiry into the Origin of Our Ideas of the Sublime and Beautiful*, ed. James T. Boulton, rev. ed. (Oxford: Blackwell, 1987) 91-125. Hereafter *PE*.

²⁴ For quotations of the 1831 version of *Frankenstein*, I adopt Maurice Hindle's edition. Maurice Hindle, ed. *Mary Shelley Frankenstein; or, The Modern Prometheus*, rev. ed. (London; New York: Penguin, 2003). Hereafter *HF*.

²⁵ Quoted in Virginia E. Swain, *Grotesque Figures: Baudelaire, Rousseau, and the Aesthetics of Modernity* (Baltimore: Johns Hopkins UP, 2004) 110.

²⁶ Critics, for example Alan Richardson and Nancy Yousef, have noted the legacy of Rousseau's philosophy of education in *Frankenstein*, but I single out the 'natural man's' cognition towards the ugly and sublime. See Nancy Yousef, *Isolated Cases: The Anxieties of Autonomy in Enlightenment Philosophy and Romantic Literature* (Ithaca, NY: Cornell UP, 2004) 149-69. Alan Richardson, 'From *Emile* to *Frankenstein*: The Education of Monsters', *European Romantic Review* 1.2 (1991): 147-62. Anne McWhir, 'Teaching the Monster to Read: Mary Shelley, Education and *Frankenstein*', *The Educational Legacy of Romanticism*, ed. John Willinsky (Waterloo, CA: Wilfrid Laurier UP, 1990) 73-92.

²⁷ *JMS* Vol. 2, 670.

²⁸ Jean-Jacques Rousseau, *Emilius and Sophia: Or, a New System of Education*, trans. Eloisa [William Kenrick], vol. 1 (London: n.p., 1762) 68, Web.

²⁹ Fredricks gives a detailed investigation into those minor characters' physical beauty (180-82). Not discussing the connection between emotion and beauty, she instead focuses the impact of the beautiful on 'social distinctions and hierarchies' (178). See 'OSB', 178, 180-82.

³⁰ In David Lynch's 1980 film entitled *The Elephant Man*, the Elephant Man is called John Merrick. See 'The Elephant Man', *IMDb* [Internet Movie Database], Web, 7 October 2010.

³¹ Philip K. Wilson, 'Eighteenth-Century "Monsters" and Nineteenth-Century "Freaks":

Reading the Maternally Marked Child', *Literature and Medicine* 21.1 (2002): 1-25, 13-14.

³² Francis Hutcheson, *Philosophical Writings*, ed. R. S. Downie (London: Everyman, 1994)

31. Hereafter *PW*.

³³ Timothy Morton, ed. *A Routledge Literary Sourcebook on Mary Shelley's Frankenstein* (London: Routledge, 2002) 13.

³⁴ These negative terms are frequently used by Frankenstein to refer to the Monster.

³⁵ Denise Gigante, 'Facing the Ugly: The Case of *Frankenstein*', *English Literary History* 67.2 (2000): 565-87, 578. Hereafter 'FUCF'.

³⁶ *F*, 86.

³⁷ John Milton, *Paradise Lost*, ed. Alastair Fowler, 2nd ed. (London; New York: Longman, 1998) 450. Hereafter *PL*.

³⁸ All quotation marks in this passage derive from the text. The speaker in this passage is Frankenstein.

³⁹ *F*, 146-47.

⁴⁰ *PE*, 119.

⁴¹ *PE*, xv-xviii.

⁴² For a further discussion of this matter, see Section 2 of my Chapter 3: 'The Changing Concept of the Mind in the Enlightenment', 105-25.

⁴³ For a further discussion of this issue, see Section 3 of my Chapter 3: 'The Birth of "New" Materialism in Romanticism', 125-36.

⁴⁴ Marilyn Butler, 'Frankenstein and Radical Science', *Frankenstein*, 302-13.

⁴⁵ Percy Shelley, Preface, *Frankenstein*, 5-6, 5.

⁴⁶ Johann Caspar Lavater, *Essays on Physiognomy; for the Promotion of Knowledge and the Love of Mankind*, trans. Thomas Holcroft, vol. 1 (London: n.p., 1789) 141, Web. Hereafter *EP*.

⁴⁷ *EP*, 71.

⁴⁸ Lucy Hartley investigates the relation between Darwin's principle of evolution and physiognomy through his 1838 notebook on 'expression and emotion in man and animal', later published in his *The Expression of the Emotions in Man and Animal* (1872). See *PME*, 142-79, 142.

⁴⁹ See Hunter's footnote to *Frankenstein*. *F*, 46.

⁵⁰ *PME*, 179.

⁵¹ See Susan Greenfield, *The Human Brain: A Guided Tour* (London: Weidenfeld, 1997).

⁵² In addition to the Shelleys' understanding of Davy and Lawrence, Byron's friendship with Davy, according to Richard Holmes, started in London in the spring of 1813 and later continued in Italy in 1818. See Richard Holmes, *The Age of Wonder: How the Romantic Generation Discovered the Beauty and Terror of Science* (Hammersmith; London: Harper, 2009) 350. Tim Marshall points to Godwin's understanding of galvanism and its influence in *Frankenstein*. See Tim Marshall, *Murdering to Dissect: Grave-Robbing, Frankenstein, and the Anatomy Literature* (Manchester: Manchester UP, 1995) 7. Hereafter *MD*. In his *Don Juan* (Canto One), Byron commented on this prevalent galvanism: 'And Galvanism has set some corpses grinning, / But has not answered like the apparatus / Of the Humane Society's beginning' (I.66). See Lord Byron, *Don Juan, The Complete Poetical Works*, vol. 5, ed. Jerome J. McGann (Oxford: Clarendon, 1986) rpt. with corr. 1992. Davy may have shared with Byron about his theories about galvanic science in 1813 and the following years. This idea of galvanism could also have been picked up from conversations between the Shelleys and Byron in the summer of 1816. For further discussion about Romantic science, see my Chapter 3.

⁵³ Karl E. Rothschuh, *History of Physiology* (New York: Robert E. Krieger, 1973) 138-44.

⁵⁴ J. Seeley and J. Wricht, *The Annual Register or a View of the History, Politics and Literature, for the Year 1803* (London: Longman, 1805) 367, Web.

⁵⁵ T. Bradley, R. Batty, and A. A. Noehden, 'Prof. Aldini's Galvanic Experiments', *The Medical and Physical Journal* 9 (1803): 382-84, 382, Web. Hereafter 'PAGE'. Also refer to *MD*, 6.

⁵⁶ In some feminist readings of *Frankenstein*, this dream is given a number of psychic meanings, yet it is still debateable whether coded messages in dreams reveal the dreamer's real thoughts or life. In my reading, I stress the fact that the substances aroused in the dream episode can affect the brain and then the body.

⁵⁷ *JMS* Vol. 2, 665.

⁵⁸ Ovid, *The Metamorphoses of Ovid*, trans. Mary M. Innes (New York: Penguin, 1955) rpt. 1981, 232. Hereafter *MO*.

⁵⁹ Pelops is dismembered in pieces by his father and then reassembled by the Olympic gods. His missing shoulder, 'from between his neck and upper arm', is substituted by a piece of ivory. *MO*, 145.

⁶⁰ Different from my interpretations that explore the positive relationship between physical beauty and emotion in this episode, Sandra M. Gilbert and Susan Gubar find an affinity between Eve's moral ugliness (vanity) and the Monster's physical ugliness. See Gilbert and Gubar's Chapter 7, 'Horror's Twin: Mary Shelley's Monstrous Eve', *The Madwoman in the Attic: The Woman Writer and the Nineteenth-Century Literary Imagination* (New Haven; London: Yale UP, 1984) 213-47, 240.

⁶¹ Those Giants are also dramatised in Euripides's *The Cyclops*, which Shelley translated in 1822 and which the Shelleys might also read in Euripides's *Works* from 1815 to 1820. Euripides, however, gives this play for the encounter between Ulysses (Odysseus) and 'Polypheme' (Polyphemus). See Percy Shelley, *The Complete Works of Percy Bysshe Shelley*, ed. Roger Ingpen and Walter E. Peck (London: Benn; New York: Gordian, 1965) vii-viii, 249-82. *JMS* Vol. 2, 646.

⁶² *MO*, 306.

⁶³ Quoted in Roderick Sebastian Tweedy, 'The Visionary Mechanic: Shelley's Early Philosophy of Nature', diss. U of Oxford, 1996, 167.

⁶⁴ Sander L. Gilman, *Making the Body Beautiful: A Cultural History of Aesthetic Surgery* (Princeton: Princeton UP, 1999) 153. Hereafter *MBB*.

⁶⁵ *MBB*, 85-87, 149.

⁶⁶ Marc Lafrance, "'She Exists Within Me": Subjectivity, Embodiment and the World's First Facial Transplant', *Abjectly Boundless: Boundaries, Bodies and Health Work*, ed. Trudy Rudge and Dave Holmes (Surrey; Burlington, VT: Ashgate, 2010) 147-62.

⁶⁷ Deidre Lynch, 'Overloaded Portraits: The Excesses of Character and Countenance', *Body & Text in the Eighteenth Century*, ed. Veronica Kelley and Dorothea von Mücke (Stanford: Stanford UP, 1994) 112-43, 116-17.

⁶⁸ *MBB*; Elizabeth Haiken, *Venus Envy: A History of Cosmetic Surgery* (Baltimore; London: Johns Hopkins UP, 1997). Hereafter *VE*.

CHAPTER SIX

Seeking Love: Byron's *Don Juan* (1819) and Shelley's *Epipsychidion* (1821)

Love is one of the most mysterious human emotions to fascinate the Shelley circle. The philosophical and emotional dialogues rehearsed between Shelley's *Alastor* (1816) and Byron's *Manfred* (1817) are re-imagined (after the two poets were reunited in Venice on 22 August 1818) in *Don Juan* and *Epipsychidion*.¹ Wide-ranging critical perspectives have interpreted the Shelley circle's preoccupation with love in terms of a visionary journey or self-quest. Sexuality, desire, passions, homoeroticism, libido, and eros are all aspects of these two poetic works by Byron and Shelley often discussed by critics² and which form a point of departure for my own argument concerned here with the materiality of love. Their reunion in Venice renews the poetic dialogue between Shelley and Byron, as dramatised in Shelley's composition of *Julian and Maddalo: A Conversation* in early 1819.³ This chapter contrasts Shelley's philosophy of love, in *Epipsychidion*, with Byron's notion of love exhibited in the first canto of *Don Juan*. Prior to writing *Epipsychidion*, Shelley saw love as 'the link and type of the highest emotions of our nature'⁴ and his unorthodox concept of love advocates the idea of free love.

My approach draws on science, emotion, and sexuality to explore how the emotion of love is manifest through material world of physicality. The cultural history of sexuality⁵ and gender studies (in particular, queer theory) scrutinise non-normative love. The sexual

discourse has been systematised by Michel Foucault and current queer critics.⁶ The term ‘queer’ in my discussion is taken from the discourse of theories of gender and extended to include any form of marginalised sexuality that challenges traditional morals or laws. The concept of ‘queer’ has been subjected to a variety of different interpretations. Anna-Marie Jagose extends the term queer from ‘lesbian and gay’ to include ‘cross-dressing, hermaphroditism, gender ambiguity and gender-corrective surgery’ (3).⁷ Robert J. Corber and Stephen Valocchi, referring to a wider school of queer theorists, argue that ‘... “queer” names or describes identities and practices that foreground the instability inherent in the supposedly stable relationship between anatomical sex, gender, and sexual desire’ (1).⁸ In order to advocate sexual dynamics and equality in my chapter, I adopt the broader sense of queer that is understood by Corber and Valocchi.

Drawing on literary readings of sexuality in *Epipsychidion*,⁹ this chapter compares the philosophy of queer love in *Don Juan* and *Epipsychidion*. Recently literary critics, including Richard C. Sha and Alan Richardson, have started to draw on forbidden sexuality, aesthetics, and science in British Romanticism.¹⁰ In light of these concerns, my chapter compares Byron’s *Don Juan* and Shelley’s *Epipsychidion* to show how love for Byron and Shelley is grounded in queer sexuality and atheistic materialism.

I. The Womaniser's Love and Queer Emotion

Byron read to Shelley a draft of *Don Juan* (Canto 1) during their reunion and later Shelley himself read its published version in January of 1820.¹¹ Both of Byron's *Don Juan* and Shelley's *Epipsychidion* disclose repressed love and sexuality.¹² Queering or womanising in their philosophy of love challenges mainstream sexual behaviour. At the level of narrative in *Don Juan*, Don Juan is both an 'innocent' abroad and womaniser who seeks ultimate love by means of his own unconventional desires.¹³ In his letter to the Reverend John Becher on 26 February 1808, Byron expressed his own real-life preference for womanising in his youth: 'Indeed, I am worse than ever, to give you some idea of my late life, I have this moment received a prescription from Pearson, not for any *complaint* but from *debility*, and literally *too much Love*'.¹⁴ A 'womanizer', according to *The Oxford English Dictionary*, is 'one who goes after or consorts illicitly with women'.¹⁵ Despite Don Juan being stigmatised as a womaniser, the womaniser's 'illicit' behaviour suggests dissatisfaction with their current sexual relationships. Due to this unsatisfied love, a womaniser consciously or subconsciously resists permanent relationships.¹⁶

This womanising or queer philosophy is more complicated in Shelley's *Epipsychidion*. Earl R. Wasserman, referring to the etymology of 'Epipsychidion' from C. D. Locock and James A. Notopoulos, claims that *Epipsychidion* echoes the idea of 'a soul within our soul' in Shelley's 'On Love', which he continues to explore as his 'theme of the "epipsyche" [on the

soul]’.¹⁷ This ‘little soul’ (psychidion), in my discussion, signifies a suppressed or *belittled* love. Shelley relates this *little* love or homosexual love to ‘the eternal Curse’ (*E*, 25) or a ‘sad song’ (*E*, 35). Like Byronic sexuality in *Don Juan*, forbidden love or queer sexuality in *Epipsychidion* has been a topic of investigation for critics of Shelley. In his letter to his publisher John Gisborne, Shelley refrains from revealing his unspoken homoerotic desire and instead calls this poem ‘a mystery’: ‘The Epipsychidion is a mystery—As to real flesh & blood, you know that I do not deal in those articles ... as expect any thing human or earthly from me’ (qtd. in *SCR* 419). Like Byron, Shelley’s sexuality fluctuates between homosexuality and heterosexuality, which intrigues his biographers and critics to unveil the mystery of his sexuality. Nathaniel Brown argues that this ‘psychodynamics of Shelleyan love are thus epitomized as the quest of the lover to match his ideal self-image or inner type’¹⁸

Byron employs a sexually notorious character or ‘womaniser’ named Don Juan to mock sexual conservatism and morality. Despite different tones and styles in *Don Juan*, the omnipresent narrator in *Don Juan* tells the reader about the young Juan’s youthful exploits. The narrating ‘I’ in *Don Juan* reveals not only Don Juan’s mental development but physical changes. Considered an autobiographical poem by some Byron critics,¹⁹ *Don Juan* presents Byron’s narrator as synonymous with Byron himself.²⁰ Byron’s narrator introduces the reader to the flirtatious Spanish figure of Don Juan as a vehicle to explore liberated sexuality

and human nature:

I WANT a hero: an uncommon want,

When every year and month sends forth a new one,

Till, after cloying the gazettes with cant,

The age discovers he is not the *true one*;

Of such as these I should not care to vaunt,

I'll therefore take our ancient friend Don Juan,

We all have seen him, in the pantomime

Sent to the devil, somewhat ere this time.

[Emphasis added] (1.1-8)²¹

In Byron's satirical parody, Don Juan – pronounced 'Jew-an' – sounds like 'Don True-One' for whom Byron longs: 'The age discovers he [a new one] is not the true one;' (*DJ*, 1.4). This 'Mr True Man' or a *womaniser* is the spokesman of Byron's 'uncommon' (*DJ*, 1.1) sexual radicalism which questions the hypocrisy of the society that fills the 'gazettes with cant' (*DJ*, 1.3). Byron strives to liberate human nature and reassess sexual morality that not only restricts human nature but can make human beings unhappy. Andrew Elfenbein demonstrates that Byron's first canto of *Don Juan* challenges the 'Regency idealization of love' or 'the hegemony of conventional heterosexual love'.²² Don Juan's 'unnatural' sexuality or womanisation is exemplified in Foucault's *History of Sexuality*:

Underneath the great violator [Don Juan] of the rules of marriage—stealer of wives, seducer of virgins, the shame of families, and an insult to husbands and fathers—another personage can be glimpsed: the individual driven, in spite of himself, by the somber madness of *sex*. [Emphasis added] (WK, 39)

Foucault suggests that ‘an insult to husbands and fathers’ (WK, 39) is a strategy to challenge the hegemony of a heterosexual marriage. Byron revives this sexually radical character in a bid to unveil the repressed sexuality caused by conventional morality. He retells Juan’s adventures in a comic style to appeal for a more tolerant society for queer or unorthodox love. Juan’s innate wildness was repressed by his formal education until puberty. This repressed sexuality reveals Donna Inez’s ‘sexual hypocrisy’ through the ‘deliberately emasculated education’ she imposes on him (BHF, 181). Observing the adolescent Juan’s untamed nature, Byron flaunts unconventional discipline, behaviour, and education. In stanza 25, the infant Juan was as untamed as a ‘mischief-making monkey’ (DJ, 25.194) and ‘the most unquiet imp on earth’ (DJ, 25.196) and was expected to become well-mannered through *schooling*: ‘... they’d [Juan’s parents] have sent young master [Juan] forth / *To school*, or had him *soundly whipp’d* at home, / To teach him *manners* for the time to come’ [emphasis added] (DJ, 25.198-200). School, in Byron’s narrator’s understanding, results in the deprivation of human nature. This behaviouristic or approximately Spartan education – through stimulus-response ‘conditioning’ processes²³ – defies Byron’s liberalism. George III, whom Byron attacks in

Don Juan, emphasised traditional morality to eradicate sexual ‘vices’.²⁴ Byron’s narrator mockingly points out that this education only works temporarily, but Juan’s parents have ‘... destroy[ed] / His [Juan’s] natural spirit ...’ (*DJ*, 50.396-97) simply for their own reputation and pleasure. Despite this view echoing Rousseau’s natural man in *Emile*, Byron’s *Don Juan* further stresses this liberalism in love as well as sexuality.

Byron describes an unhappy married life between Juan’s parents as well as that between Donna Julia and Don Alfonso to express a preference for queer love and reassess sexual morals in a heterosexual marriage. In the last section of *Don Juan*, the narrator claims that ‘... this is not a moral tale, though gay [cheerful]; / Besides, in canto twelfth, I mean to show / The very place where wicked people go’ (*DJ*, 207.1654-56). Byron’s narrator suggests that *Don Juan* does not convey moral teachings, but demonstrates a diverse set of lifestyles, including those of ‘wicked people’ (*DJ*, 207.1656) and sexual dissidents in a celebratory manner. In his Preface to *Julian and Maddalo*, Shelley notes Byron’s anti-religious hedonism: ‘... Maddalo [i.e., Byron] takes a *wicked pleasure* in drawing out his *taunts against religion*’ [emphasis added] (*SPP*, 121). Different from Shelley’s comment on this ‘wicked pleasure’, Byron’s hedonistic view subverts religion-based marriage systems and leads to a liberated and more humane sexual morality. In addition to queer theorists, other recent cultural historians have probed into eighteenth-century sexuality in an attempt to reassess the morality of sex at the time.²⁵ Byron’s anti-religious sexual liberalism may be indebted to the early

eighteenth-century 'erotic' writer John Cleland. Randolph Trumbach notes: 'Cleland's romantic *eroticism*, unlike that of most of his fellow novelists, was not, however, tied to a traditional *Christian morality*. It was instead libertine, *anti-Christian* and *materialist* ...' [emphasis added].²⁶

Byron's sentimentalism in relation to the emotion of love is embedded in his satirical narrative in the two cases of Donna Inez (Juan's mother) and Donna Julia (Juan's seducer). These two women are victims trapped within a traditional set of morals and marital system. Eighteenth-century sentimentalism leads Byron to the realm of emotion. Some critics note Byron's awareness of this sentimentalism in *Don Juan* and this discussion helps to develop my argument on the emotion of love. Along with the influence of '[Alexander] Pope and [Oliver] Goldsmith' on Byron, '[Lawrence] Sterne's fusion of sentiment and ironic psychological presentation', according to W. Ruddick, deeply impresses Byron and is inevitably adopted in *Don Juan*.²⁷ James Soderholm discloses 'Byron's sentimental idealism' (93) and womanising characteristic through the interpretation of Byron's 'To Thryza' and his ex-wife Annabella Milbank's unpublished poem 'Thyrza to Lord Byron' (90-93).²⁸ In this context, Alan Rawes emphasises that 'Byron often used poetry as a kind of cathartic self-therapy, venting not only a boiling imagination, but heated emotions'.²⁹ Ostensibly in a comic vein, *Don Juan* explores Byron's repressed 'heated emotions' in the form of Inez's and Julia's marriages.

Donna Inez's failing marriage encompasses complicated emotions that derive from sexual desire. Despite Juan's mother's sophistication in 'calculation' (*DJ*, 16.121) and the good nature of her 'magnanimity' (*DJ*, 12.90), the system of marriage restricts her sexual freedom. The extramarital affair (or adultery) with the sixteen-year-old handsome Juan that the twenty-three-year-old beautiful Julia commits is the consequence of a traditional marriage focused not on sexuality but reproduction as the priority. This restriction of sexuality, for Byron, is in itself morally harmful and detaches humans from the utmost positive emotion of happiness. Studying the cultural history of eighteenth-century sexuality, G. S. Rousseau and Roy Porter, drawing on philosophical hedonism and sexual practice, comment that:

New currents of philosophical hedonism, led by Lamettrie, d'Holbach and Diderot, and of utilitarianism, systematised by Jeremy Bentham, gained ground, advancing the view – popularised in novels such as John Cleland's *Memoirs of a Woman of Pleasure* – that sex was a basic mode of human enjoyment. (*SUE*, 1)

Chiming with these early philosophical assertions of, for example French materialism and Bentham's utilitarianism, Byron's hedonism emerges through his narrator's defence of bodily autonomy and critiques sexual repression of this kind. Byron has compassion for Donna Inez's wretched marriage – without a sex life – and teases Don José (Juan's father) about his *wild* extra-marital affairs:

Perfect she [Donna Inez] was, but as perfection is

Insipid in this naughty world of ours,
 Where our first parents never learn'd to kiss
 Till they were exiled from their earlier bowers,
 Where all was peace, and innocence, and bliss,
 (I wonder how they got through the twelve hours)
 Don José, like a lineal son of Eve,
 Went plucking various fruit without her leave. (*DJ*, 18.137-44)

Like Shelley's Emilia, who is physically imprisoned in the convent (as detailed in the epigraph to *Epipsychidion*),³⁰ Donna Inez is a symbol of a married woman with a 'sex' life equivalent to being imprisoned in an '[i]nsipid' (*DJ*, 18.138) convent. Although with sympathy, Byron's narrator implicitly relates the 'perfection' (*DJ*, 18.137) of Juan's dominant mother to her sexual 'insensitivity' or repression. Inez's sexual 'innocence' (*DJ*, 18.141) or ignorance, like the asexual state of Adam and Eve in Eden – 'Where our first parents [Adam and Eve] never learn'd to kiss' (*DJ*, 18.139) – is caused by her mismatched marriage with Don José. On the contrary, the 'naughty world of ours' (*DJ*, 18.138) alludes to a queer society with sexual plurality³¹ which is reflected in Juan's and his father's casual attitude towards sex. This '[i]nsipid' (*DJ*, 18.138) but '[p]erfect' (*DJ*, 18.137) state, in Byron's satirical expression, explains Donna Inez's sexual plight through a comparison with Inez's 'virtues' (*DJ*, 17.135) or chastity and a 'modern female sain[t]' (*DJ*, 17.130) who needs no 'guardian

angel' (*DJ*, 17.132). '[T]he twelve hours' (*DJ*, 18.142), Byron's narrator suggests, are critical moments for the physical intimacy of Adam and Eve in the 'bowers' (*DJ*, 18.140) or chambers, yet nothing sexual occurs in Eden. Due to his radicalism, Byron criticises this religious myth that eliminates those sexual emotions or desires that Inez suffers. Yet José's wild nature or womanisation, contrasted with Inez's chastity, explains a Satanic emotion of sex: 'Don José, like a lineal son of Eve, / Went plucking various fruit without her leave' (*DJ*, 18.143-44). This 'various fruit' (*DJ*, 18.144) refers to José's addiction to *forbidden fruit* – sex. Inez's chastity or virginity was only removed after 'Don José and his lady [Donna Inez] quarrel'd ...' (*DJ*, 23.177) and afterwards created their by-product of love – Don Juan. Nevertheless, Byron illuminates Inez's sexual awakening soon after her husband's love affairs: 'Whisper'd he [José] had a mistress, some said *two*, / But for domestic quarrels *one* [Inez] will do' (*DJ*, 19.151-52). These 'domestic quarrels' (*DJ*, 19.152) allude to Inez's sexual desire after the disclosure of José's extramarital love affairs. This inharmonious sex life between Inez and José recurs after the birth of the little Juan. In stanza 27, Byron claims that Inez's sexual disappointment results in her unhappiness and decision to end the marriage:

For Inez call'd some druggists and physicians,

And tried to prove her loving lord [Don José] was *mad*,

But as he had some lucid intermissions,

She next decided he was only *bad*;

Yet when they ask'd her for her depositions,

No sort of explanation could be had,

Save that her duty both to men and God

Required this conduct—which seem'd very odd. (*DJ*, 27.209-16)

The 'conduct' (*DJ*, 27.216) that Inez requires refers to sexual desire, but this reason for divorce, according to the narrator, 'seem'd very odd' (*DJ*, 27.216) in a society where sex is seen as an unspeakable taboo. This recognition of sexual desire and unconventional emotion instigated by physical love pervades the first canto of *Don Juan*.

In addition to Donna Inez's marriage, Byron continues his sentimentalist philosophy to analyse Donna Julia's 'unreasonable' emotion, such as 'hysteria', conflicts, and violence, in an imbalanced love relationship with either Don Alfonso or Don Juan. In spite of her confinement to a traditional marriage – without a satisfying sex life – Julia's sexual awakening is earlier than Inez's. Julia defends her 'virtuous woman's fame' (*DJ*, 146.1166) or, in fact, a defensive *deception* when Alfonso ransacks Julia's chamber for the sexual intruder – Don Juan:

During this inquisition Julia's tongue

Was not asleep—'Yes, search and search,' she cried,

'Insult on insult heap, and wrong on wrong!

It was for this that I became a *bride*!

For this in silence I have *suffer'd long*

A husband like Alfonso at my side;

But now I'll *bear no more*, nor here remain,

If there be law, or lawyers, in all Spain.

[Emphasis added] (*DJ*, 145.1153-60)

Byron uses Homeric comic relief, like the adultery of Ares (Mars) and Aphrodite (Venus) in Homer's *Odyssey*, to demonstrate the close relation between women's sexual emotions and *love*, as well as war (Ares) and love (Aphrodite). McGann supports this complex emotion that relates to sex. McGann suggests that sexuality instigates love and wars in Byron's *Don Juan*: 'Love is the occasion of terrible wars, Byron suggests, but throughout the context it is clear that greed and frustration (which are much the same thing, whether sexual or otherwise) are the real causes of evil conflicts'.³² Complicated emotions, in this scenario, are related to an unhappy marriage or the failure of love not only in the case of Inez but now in that of Julia. Byron implicitly advocates the importance of acknowledging these physical needs in marriage and interrogates why 'no one understands' (*DJ*, 21.168) this. Eighteenth-century philosophers of sexuality and erotic writers have pointed out the importance of sex,³³ but Byron further explores gender relations in an attempt to blur the traditional boundary between the masculine and the feminine. Without sex, the woman's emotion, according to Byron's narrator, turns into violence: 'And sometimes ladies *hit exceeding hard*, / And fans turn into

falchions in fair hands,' [emphasis added] (*DJ*, 21.166-67). Drawing on Susan J. Wolfson's 'cross-dressing' or queer reading that relates Don Juan to a 'phallic woman',³⁴ the masculinity of women is reflected in the psychic 'manhood' of Inez and Julia. Comically and symbolically, Byron suggests that Inez and Julia possess the phallus through their active masculine sex-drives. Byron's queer argument heightens the relationship between love and sex and challenges the established gender-oriented dualism.

The fragments of (as well as drafted Prefaces to) *Epipsychidion* reveal Shelley's sexual and emotional ambivalence that is embedded in his love poem. This inner conflict derives from Shelley's queer love for a 'woman' or, arguably, a disguised man. Mary Shelley omits a few significant passages in Shelley's 'Passages of the Poem [*Epipsychidion*], or Connected Therewith' (published in 1839),³⁵ to reduce speculations about Shelley's homosexual orientation behind his notorious womanisation. Shelley's 'myth' in *Epipsychidion* relates to sexuality and his unsaid queer or potentially same-sex lover:

And as to friend or mistress, 'tis a form;

Perhaps I wish you were one. Some declare

You a familiar spirit, as you are;

Others with a more inhuman

Hint that, though not my wife, you are a woman;

What is the colour of your eyes and hair?

Why, if you were a lady, it were fair
 The world should know—but, as I am afraid,
 The Quarterly (sic) would bait you if betrayed;
 And if, as it will be sport to see them stumble
 Over all sorts of scandals, hear them mumble
 Their litany of curses—some guess right,
 And others swear you're a Hermaphrodite; ('PPCT', 45-57)

Shelley indirectly tells the reader that this poem is not dedicated to a 'friend or mistress' (*E*, 45) but to a non-female lover: 'Perhaps I wish you were one [of them]' ('PPCT', 46). The assumption that this secret lover is 'a woman' ('PPCT', 49), according to Shelley, is an 'inhuman / Hint' and this alludes to Shelley's queer philosophy of love. Shelley's expression – 'if you *were* a lady' [emphasis added] ('PPCT', 51) – implies that this love-object is by no means a lady but a non-female love object despite the general public's assumption that the addressed person is 'a woman' ('PPCT', 49).³⁶ Shelley even worries that once the public knows of the real gender of this 'lady', particularly through the Quarterly's investigation ('PPCT', 53), it will be an unbearable scandal ('PPCT', 55-56) and his male lover will be cursed as 'a Hermaphrodite' ('PPCT', 57). In his letter to Gisborne, Shelley confirms this unorthodox love or queer sexuality: 'I think one is always in *love with something or other* ... The *error*, and I confess it is not easy for spirits cased in *flesh and*

blood to avoid it ...’ [emphasis added] (qtd. in *SMV* 159). Shelley suggests that this ‘error’ (*SMV*, 159) is his genetically or psychologically determined homosexuality. This sexual desire implies the void of Platonic love, which requires no ‘flesh and blood’ (*SMV*, 159). Instead, this sex drive is thoroughly demonstrated in *Epipsychidion*. Furthermore, Shelley’s understatement of his homoerotic preference becomes reasonable as he worries that this fatal announcement of his love could incur ‘curses’ (*SPW*, 56) from anti-homosexual ‘litany’ (*SPW*, 56) in Christianity and make his same-sex lover humiliated as ‘a Hermaphrodite’ (*SPW*, 57). As it is, Shelley became more enthusiastic about writing love poems in Italy in 1819 as an escape from this queer anxiety.³⁷ The concerns of these poems, though fragmented, are still reflected in his later *Epipsychidion*.

In addition to these ‘Passages’, which suggest Shelley’s queer inclinations, the three complex drafts for the Advertisement to *Epipsychidion* and its published Advertisement reveal further hints of his understated sexual secret. In the Advertisement, Shelley outlines his ambivalence over homoeroticism:

The present Poem, like the *Vita Nuova* of Dante, is sufficiently intelligible to a certain class of readers without a matter-of-fact history of the circumstances to which it relates; and to a certain other class it must ever remain incomprehensible, from a defect of a common organ of perception for the ideas of which it treats. (*SPP*, 392)

Acquainted with Dante's *Vita Nuova*, Shelley attempts in *Epipsychidion* to advocate a new life of sexuality, presumably queer love. Shelley alludes to a 'certain class of readers' (*SPP*, 392) to 'gay men'³⁸ or other sexual dissidents whose 'history' is devoiced by the heterosexuality-oriented authorities – 'without a matter-of-fact history' (*SPP*, 392). Worse than atheism in Shelley's time, homosexuality was forcefully silenced by political and religious authorities and, therefore, lacked its own written 'history' (*SPP*, 392). For Shelley, *Epipsychidion* will confuse 'a certain other class' (*SPP*, 392), that is, those people who are unable to perceive 'the [queer] ideas of which it [*Epipsychidion*] treats' (*SPP*, 392). Due to the unarticulated voice of the queer, Shelley points out his disappointment by quoting a prose line from Dante's *Vita Nuova*, as translated from Italian:

Great would be his shame who should rhyme anything under the garb of
metaphor or rhetorical figure; and, being requested, could not strip his words of
this dress so that they might have a true meaning. (*SPP*, 392)³⁹

Shelley refrains from writing explicitly about the 'true meaning' (*SPP*, 392) of queer love or potential homosexuality, but feels ashamed to decorate his true feelings with 'metaphor or rhetorical figure' (*SPP*, 392). This *shame* of forbidden love is further alluded to in *Epipsychidion*: '... Emily, / I love thee; though the world by *no thin name* / Will hide that love from its unvalued *shame*' [emphasis added] (*E*, 42-44). Shelley again disconnects his lover's name from 'Emily': '... the world by *no thin name* / Will hide that *love*...' [emphasis

added] (*E*, 43). The ‘unvalued shame’ (*E*, 44), meaning extremely great shame,⁴⁰ refers to his queer love. Shelley later insists in his idealist optimism, asserting hope to conquer negative emotions, like ‘grief and shame’ (*E*, 322): ‘At length, into the obscure Forest came / The Vision I had sought through *grief and shame* [emphasis added]’ (*E*, 321-22).

A heterosexual reading of *Epipsychidion* discloses the real identity of Emily as well as Shelley’s unspoken sexuality. Even though the feminine name ‘Emily’ is interpreted by critics to be associated with the persona of Teresa Viviani (known to the Shelleys as ‘Emilia Viviani’), a queer reading of Shelley’s biography leads to a suggestive *darker* realm of Shelley’s sexual desire.⁴¹ This traditional association of Emily with Emilia Viviani was earlier mentioned by Notopoulos. Notopoulos argues that ‘Emilia Viviani’ is ‘the Platonic counterpart of his [Shelley’s] soul’, that is, ‘Plato’s Intellectual Beauty and Love’.⁴² In his textual reading of *Epipsychidion*, Wasserman relates ‘the love song of P. B. Shelley to Emilia Viviani’ (*SCR*, 428) and affirms King-Hele’s idea⁴³ about the similarities between some lines in ‘Emilia [Teresa] Viviani’s essay on Love’ (*SCR*, 460) and *Epipsychidion* in an attempt to ‘prove’ that the Emily is Emilia. Stuart M. Sperry doubts this glib connection of Teresa and Emily: ‘If it springs directly from the intensity of Shelley’s involvement with Teresa, it also moves through a series of progressive disengagements. The lines are not addressed to Teresa Viviani but to an “Unfortunate Lady, Emilia V—,” or, more simply, the “Emily” of this poem’.⁴⁴ It is therefore arguable that Emily refers to Emilia. In the light of this, Nancy

Moore Goslee re-examines the drafts of *Epipsychidion* and infers that Shelley may have started *Epipsychidion* in the fall of 1820 instead of December 1820 when the Shelleys met Teresa Viviani.⁴⁵ Lauritsen's queer reading particularly rejects Emily's association with either Teresa or Emilia and instead relates Emily to Edward Ellerker Williams (Shelley's best friend in Italy), whose 'code name' would be Emily in 'the Shelley-Byron circle'.⁴⁶ From this queer perspective, the feminised name 'Emily' – ideally to meet mainstream values of sexuality which are dominated by a heterosexual society – can be seen as Shelley's disguise of a male lover. This literary phenomenon related to 'cross-dressing' or queering is demonstrated in Gothic texts, such as Lewis's *The Monk*, Godwin's *Caleb Williams*, Byron's *Manfred*, and Polidori's *The Vampyre*.⁴⁷ Shelley's acquaintance with these texts and their authors reinforces the queering of his 'female' Emily. Following Lauritsen's assumption, I further probe into Shelley's 'cloud' that alludes to his secret lover: 'The *Epipsychidion* I cannot look at; the person whom it celebrates was a *cloud* instead of a Juno ...' [emphasis added] (qtd. in *SHTW* 271). Different from his public authorship of *Prometheus Unbound* (1820), Shelley's motive to publish *Epipsychidion* anonymously alludes to his 'cloud' to conceal his homosexuality. Like Byron's *Thyrza* or William Shakespeare's Mr. W. H., Shelley veils his dark sexuality through this feminised Emily. It turns out that Shelley becomes reluctant to use the name 'Emily' and a female third person pronoun, like she or her, rather than a male one to narrate his young love. In *Epipsychidion*, Shelley suggests an angelic

woman's form to relate to a male lover (thee): 'Seraph of Heaven! too gentle to be human, / Veiling beneath that radiant form of Woman / All that is insupportable in thee / Of light, and love, and immortality!' (E, 21-24). This non-female lover is again implied when Shelley desires to 'ha[ve] been twins of the same mother' (E, 45) with Emily. Biologically, the identical traits in genes and/or characteristics that Shelley expects only occur to monozygotic twins (identical, same-sex twins). This is another example to prove Shelley's reluctance to feminise his lover. '[T]hat love' (E, 44) that Shelley intends to 'hide' (E, 44) is *homosexual* in orientation, but Shelley's own time forces him to conceal any explicit descriptions of his love toward his male lover and, therefore, prevent his lover from being humiliated: 'Aye, even the dim words which obscure thee now / Flash, lightning-like, with unaccustomed glow; / I pray thee that thou blot from this sad song' (E, 33-35). '[T]he dim words' (E, 33) refer to Shelley's poetic lines in *Epipsychidion* and seek to protect his lover with 'this sad song' (E, 35) serving as a reference to the poem's understated queer love.

Shelley's *Epipsychidion* represents a vision of Godwinian free love⁴⁸ as well as his own coded homosexuality. This free love is, however, not limited to mainstream heterosexuality. Like *Queen Mab*, *Epipsychidion* again depicts Shelley's vision of happiness or his philosophy of love. Love, as an emotion that calms the mind, penetrates into Shelley's *Queen Mab* and *Epipsychidion* and eventually is the culmination of Shelley's idealist philosophy. Shelley's enthusiasm for homoeroticism emerges from *Epipsychidion*, but F. S.

Ellis, in his Shelley's *Concordance*, defines 'love' in a traditional heterosexual understanding:

'the passion of love, a feeling of affection, sympathy and devotion *between the sexes*

[emphasis added]'.⁴⁹ In other words, among Ellis's twenty-three aspects (nouns or verbs) to

define 'love',⁵⁰ sexuality only occurs 'between the sexes' rather than same sex. In terms of

this, a potential spectrum of sexuality that Shelley suggested was not equally detected until

queer scholars revisited it.⁵¹ The oppression of queer sexuality is demonstrated in

Epipsychidion: 'Sweet Benediction in the eternal Curse! / Veiled Glory of this lampless

Universe!' (*E*, 25-26). For Shelley, the reciprocal love, though manifest in a queer and

love-object-relation, is an oxymoron between sweetness and bitterness: 'Sweet Benediction

in the eternal Curse' (*E*, 25). The 'Curse' (*E*, 25) derives from legal sanctions as well as social

pressure against non-mainstream or queer sexuality.⁵² Shelley's poetic narrative prefigures a

sexual utopia that queer scholars endeavour to attain. In his poetical language, this utopia

should '... ha[ve] no thorn left to wound thy bosom' (*E*, 12). This trope of 'thorn' (*E*, 12)

refers to prejudices from moral and legal codes that incur pain to the 'bosom' (*E*, 12) or the

human mind. Love becomes a natural force for Shelley that leads to a visionary perfection.

This power of true love in *Epipsychidion* helps Shelley to overcome these difficulties: '... but

true love never yet / Was thus constrained: it overleaps all fence: / Like lightning, with

invisible violence / Piercing its continents; like Heaven's free breath,' (*E*, 397-40). In addition

to Lauritsen's claim that '[t]he death penalty for "buggery" remained in effect in England

until 1861, and in Scotland until 1887' (*DMG*, 7), Charles Donelan investigates male sexuality in Romanticism and discovers:

On 1 June 1787, George III issued a royal proclamation 'for the Encouragement of Piety and Virtue, and for [the] (sic) preventing and punishing of Vice, Profaneness, and Immorality', which included a provision ordering the suppression of 'all loose and licentious prints, books, and publications dispensing poison to the minds of the young and unwary'. (*R&M*, 1)

Sexuality, along with other 'immoral' vices, is suppressed to avoid contaminating 'the minds of the young and unwary' (*R&M*, 1). This potential 'coming out' or queering through

Epipsychidion is implied in Shelley's letter to Gisborne:

The 'Epipsychidion' I cannot look at; the person whom it celebrates was a cloud instead of a Juno; and poor Ixion starts from the centaur that was the offspring of his own embrace. If you are anxious, however, to hear what I am and have been, it will tell you something thereof. *It is an idealised history of my life and feelings. I think one is always in love with something or other; the error, and I confess it is not easy for spirits cased in flesh and blood to avoid it, consists in seeking in a mortal image the likeness of what is perhaps eternal.* [Emphasis added] (*Letters*, 2, 434).⁵³

In other words, Shelley's letter to Gisborne instigates the potential rumour about Shelley's

queer sexuality which could be explained in *Epipsychidion*. Shelley also suggests that this love poem demonstrates his ‘life and feelings’ (*PBUR, Letters*, 2, 434) relating to his homoeroticism. Shelley’s sexuality is determined by his body or, scientifically, his genes: ‘I [Shelley] confess it is not easy for spirits cased in flesh and blood to avoid it [sexual preference]’ (*PBUR, Letters*, 2, 434). This ‘confession’ is less explicit than those of St. Augustine and Rousseau and conveys Shelley’s sexually ‘new life’ as suggested by Dante’s *Vita Nuova*. Read as important material for ‘Greek love’ or homosexuality,⁵⁴ *The Symposium* aroused Shelley’s enthusiasm and he translated the original version from Plato. Despite the mention of his short-lived emotional attachment to Emilia, Shelley comments on his own *Epipsychidion* and intentionally alludes to the homosexual issue throughout this love poem: ‘... even they [critics] it seems are inclined to approximate me to the circle of a servant girl & her sweetheart. – But I intend to write a *Symposium* of my own to set all this right’.⁵⁵ This ‘Symposium of [Shelley’s] own’ is *Epipsychidion*, which he regarded as a work of anti-Platonic or queer love.

The vision of happiness in *Epipsychidion*, like that in *Queen Mab* or the solitary quest in *Alastor*, demonstrates Shelley’s hoped for idealism of the potential of love. The concept of hope or optimism is used in *Queen Mab* and persists through his poetic concern to *Epipsychidion*, yet this unblessed love also resonates with Byron’s Donna Julia’s love for Don Juan. This idea of love brings pain to Shelley: ‘Ah, woe is me! / What have I dared?

where am I lifted? how / Shall I descend, and perish not? I know / That Love makes all things equal...’ (*E*, 123-26). Love, no doubt, is a force for Shelley’s optimism. In *Epipsychidion*, the imagery of light refers to love or Emily.⁵⁶ Different from the non-material void in the darkness, light is presented through metaphors of material substance which repeatedly appear in *Epipsychidion* to relate to love, vision, and hope in the poem. Shelley’s utopia of queer love is through his Vision or imagination: ‘I stood, and felt the *dawn* of my *long night* / Was penetrating me with *living light*: / I knew it was the *Vision* veiled from me / So many years—that it was Emily’ [emphasis added] (*E*, 341-44). Shelley contrasts darkness and light to demonstrate his sentiments of longing for idealised love. Emily is symbolic of this ideal love. This *light*, in the hypothesis of quantum physics, is a kind of material and Shelley relates its substance to love. Like a current assertion of sexual equality and sexual rights, Shelley expects that his new perspective on love can change old-fashioned sexual values over time:

Young Love should teach Time, in his own grey style

All that thou art. Art thou not void of guile,

A lovely soul formed to be blest and bless?

A well of sealed and secret happiness,

Whose waters like blithe light and music are,

Vanquishing dissonance and gloom? (*E*, 55-60)

This 'Young Love' (E, 55) alludes to a new form of sexuality or potential homosexuality. It also discloses Shelley's longing for a Dantean 'new life' as in *Vita Nuova*. With the advances of thought, Shelley predicts that the 'grey style' (E, 55) in history should be replaced by new values, especially sexual values. Shelley suggests that the unblessed love or same-sex love of '[a] lovely soul' (E, 57) who faces its true sexuality without 'guile' (E, 56) or trickery should be recognised or 'de-stigmatised' by the general public. This 'well of a sealed and secret happiness' (E, 58) signifies a homoerotic circle, in which homosexual love is confined within a well-like world. Meanwhile, Shelley interrogates whether homoerotic people's intelligent thoughts, like 'blithe light and music' (E, 59), can defeat their identity crises and self-negation – 'dissonance and gloom' (E, 60) – when they live in an extremely homophobic society. The frequently appearing imagery of light in *Epipsychidion* reflects the bright side of past times and hoped for future positive emotion. A homophobic or anti-queer society, for Shelley, is like a 'Tempest' (E, 312) or an 'obscure Forest' (E, 321) represented in his Dantean allusion. This imagery of darkness and storm, therefore, clouds oppressed homosexuals and, according to Shelley, is like 'a lampless sea' (E, 311). In *Epipsychidion*, Shelley refers to his male lover in the feminised form of 'Emily' (E, 344) and as a 'living light' (E, 342):

Soft as an Incarnation of the Sun,

When light is changed to love, this glorious One

Floated into the cavern where I lay,

And called my Spirit, and the dreaming clay

Was lifted by the thing that dreamed below

As smoke by fire, and in her beauty's glow

I stood, and felt the dawn of my long night

Was penetrating me with living light:

I knew it was the Vision veiled from me

So many years—that it was Emily. (*E*, 335-44)

This 'Vision' (*E*, 343) that Shelley has expected for '[s]o many years' (*E*, 344) is stressed in the Poet's lonely quest in *Alastor* and especially resonates with Shelley's own vision. This Emily who once entered Shelley's early teenage life is his schoolmate, but Shelley's object of affection was a boy. In his 'An Essay on Friendship', Shelley recalls a similar same-sex attachment and this event may also be reflected in *Alastor* and now again in *Epipsychidion*:

The nature of Love & Friendship is very little understood and the distinctions between them ill established. This latter feeling – at least a profound & sentimental attachment to one of *the same sex*, wholly divested of the smallest alloy of *sensual intermixture*, often precedes the former. ... *The object of these sentiments was a boy about my own age*, of a character eminently generous[,] brave & gentle, & the elements of human feeling seemed to have been, from his

birth genially compounded within him. There was a [d]elicacy (sic) & simplicity
in his manners inexpressibly attractive. ... I recollect thinking *my friend*
exquisitely beautiful. Every night when we parted to go to bed I remember that
we kissed each other. [Emphasis added] (*SPW*, 245)

In this poem, Shelley blurs the boundary between ‘Love & Friendship’ (*SPW*, 245) and implies sexual attraction between groups of male friends or homosocial circles. Against this background *Epipsychidion*, though published anonymously, can be read as Shelley’s private declaration of queer love.

II. Materialism or Transcendence: The Beautiful and the Sublime

Different from the Byronic hero’s escapism in *Manfred*, a cheerful but satirical narrative voice pervades Byron’s *Don Juan*. Shelley had sensed this dramatic change in Byron after their reunion and wrote in a letter to Thomas Love Peacock, dated 8 October 1818, that ‘[Byron] is changed into the liveliest and happiest looking man I ever met’ and reads him ‘the first canto of his [unfinished] “Don Juan”’ (*Letters*, 394, 334).⁵⁷ These personality traits of Byron are also described by Shelley in the Preface to *Julian and Maddalo*: ‘He is cheerful, frank, and witty’ (*SPP*, 120). This distinctive change in personality points to a difference between the poetic treatment of love in Byron’s *Don Juan* and Shelley’s *Epipsychidion*. For Shelley, the beautiful demonstrates love, whereas for Byron the sublime

equates with madness. That said Byronic and satiric in style of *Don Juan*, evidently, influences Shelley's attitude towards love. Through Shelley's idealism love becomes a force to transcend from the earthly to the eternal. In spite of these polarised differences between their philosophies of love, both the views of Byron and Shelley are grounded in a materialist and unconventional view of love. In what follows, *Don Juan* and *Epipsychidion* are understood as offering different concepts of love, which centre on the sublime and the beautiful.

In *Don Juan*, Byron hints at the relationship between unconventional love and emotion. The subtle connection between Byron himself and his narrator in *Don Juan* has been explored by some critics, but other more sceptical critics have detached the author's voice from the characters it presents.⁵⁸ Alternatively, the narrator can be regarded as Byron's double although this 'Byron' is both a created persona and historical reality.⁵⁹ Drawing on classical epics, Byron composes a love 'epic' (*DJ*, 200.1593) which, ostensibly spoken by his narrator in *Don Juan*, competes with 'the style of Virgil and of Homer' (*DJ*, 200.1599).⁶⁰ *Don Juan* hints uncannily at Byron's own sexual journey and reflects on the sublime of human emotions.

An anti-metaphysical or materialist conviction in *Don Juan* leads Byron to further emphasise the materiality of love and pursue the sublime of love. Byron targets Robert Southey, Samuel Taylor Coleridge, and William Wordsworth⁶¹ as a means to advocate his

own brand of hedonism. In his Dedication to *Don Juan*, Byron claims that the first-generation Romantics betray truth for earthly fame or government posts⁶² in order to please the state, church, and monarchy. Among those Lakers, Southey is the arch target in this Dedication. As a laureate, Southey converted to the Tory party, which means that he now endorsed the legitimacy of the monarchy and British conservatism in his time. The nursery rhyme⁶³ Byron quotes in this Dedication is recast as a taunt to the first-generation Romantics and their metaphysical philosophy:

With all the Lakers in and out of place?

A nest of tuneful persons, to my eye

Like ‘four and twenty blackbirds in a pie;

‘Which pie being open’d, they began to sing’—

(This old song and new simile holds good)

‘A dainty dish to set before the King,’

Or Regent, who admires such kind of food. (*DJ*, 6-12)

Byron regrets that the great changes of the ‘Lakers’ (*DJ*, 6) are like ‘blackbirds in a pie’ (*DJ*, 8) singing for ‘the King’ (*DJ*, 11). Turning nursery rhyme into satire, Byron recognises that this ‘new simile’ (*DJ*, 10) equates George III with the greedy king ‘... in his counting-house, / Counting out his money’ as depicted in the nursery rhyme.⁶⁴ Byron’s abhorrence of

metaphysics dates back to the fierce debates between vitalism and materialism between Abernethy and Lawrence.⁶⁵ Over these debates, the Lakers uphold Abernethy's vitalist metaphysics. Abernethy may have rejected the mortality of the mind, but he agreed with Lawrence about the reciprocal relation between the mind and the body:

They [philosophers] would then indeed still farther perceive how *mind and matter reciprocally operate on each other* by means of *an intervening substance*. ... in addition to his [one's] bodily frame, he possesses a sensitive, intelligent, and *independent mind* [Emphasis added]⁶⁶

As a supporter of Lawrence's materialist camp, Byron continues to challenge the Lakers' vitalist convictions in *Don Juan*. This vitalist philosophy is fundamentally akin to early metaphysics as well as Kantian *a priori* hypothesis, in which the existence of God and the immortality of the 'soul' were asserted. These first-generation Romantics' essentially succumbing to this metaphysics, for Byron, is a shame as well as a dangerous mistake. The comments of Byron's narrator, at the end of *Don Juan*, suggest more teasing complaints about these older Romantics: 'Thou [the reader] shalt not set up Wordsworth, Coleridge, Southey; / Because the first is crazed beyond all hope, / The second drunk, the third so quaint and mouthy:' (*DJ*, 205.1634-36). In the Dedication, Byron's anti-metaphysics are explicitly mentioned in his regret for Coleridge's metaphysical philosophy: 'And Coleridge, too, has lately taken wing, / But like a hawk encumber'd with his hood, / Explaining *metaphysics* to

the nation— / I wish he would explain his Explanation’ [emphasis added] (*DJ*, 13-16). Even though he later reassesses the significance of eternity in relation to the mind or the ‘soul’, Byron sympathises with atheistic forms of materialism. He writes in a Journal of 16 November 1821: ‘I have often been inclined to Materialism in philosophy—but could never bear it[s] introduction into Christianity—which appears to me essentially founded upon the Soul.—For this reason, [Joseph] Priestley’s Christian Materialism—always struck me as deadly’.⁶⁷ A close friend to Coleridge, Priestley was regarded as another supporter of Abernethy’s vitalism and his ‘Christian Materialism’ which, as Byron suggests, is essentially a form of metaphysics. In this sense, it is inevitable that Byron saw Lawrence’s atheistic materialism as a foundation for his own hedonistic pursuit of love and happiness.

Freedom of thought as well as the body is central to Shelley’s thought. In an unfinished Preface to his translation of Plato’s *The Symposium* (or *The Banquet*), Shelley comments on Plato’s ‘moral and metaphysical knowledge’ (*PoS*, 402):

His [Plato’s] views into the nature of mind and existence are often *obscure*, only because they are profound; and though his *theories* respecting the *government* of the world, and the elementary laws of *moral* action, are *not always correct*, yet there is scarcely any of *his treatises* which do not, however *stained by puerile sophisms*, contain the most remarkable intuitions into all that can be the subject of the *human mind*. [Emphasis added] (*PoS*, 402)⁶⁸

Except for his interest in Plato's studies on the complexities of the human mind, Shelley's philosophy is not solely inclined to Platonic metaphysics. Gerald Enscoe recognises this point and concludes in his reading of *Alastor* and *Epipsychidion*:

Although he [Shelley] admired Plato and read him with great sympathy, he differs from the Platonic as well as traditional Christian ethos in that he rejects any superhuman, supernatural hierarchy. The God he seeks is a natural one, enclosed in human flesh and knowable only in human and sensual terms.⁶⁹

Shelley's translation of Plato's *The Symposium*, however, portrays a Socrates who foreshadows Kant's ideas of Beauty or love in a divine and peaceful state: 'Love seems to me [Socrates], O Phædrus, a *divinity* the most *beautiful* and the best of all ... [and] creates *peace* among men ...' [emphasis added] (*CWPBS* Vol. 7, 191).

In *Epipsychidion*, Shelley depicts the Poet's ambivalence towards Platonic love and hedonist pleasure, which traditionally defines a dualistic conflict between the materiality of love (the body) and the immateriality of love (the spirit). The emotion of love is a major concern that pervades Shelley's poetry. In his 'Love's Philosophy', written in 1819, Shelley suggests that love is 'a sweet emotion': 'The winds of heaven mix forever / With a sweet emotion' (3-4).⁷⁰ These 'winds of heaven' in Shelley's poetical language refer to the substance of pleasure that instigates pleasant emotion. Despite his ambivalence towards Platonic philosophy, the pursuit of ideal love leads Shelley to probe into the ideas of Platonic

and Greek love.

Different from Byron's abhorrence of Platonism, anti-homosexual dialectic in Plato's *The Symposium* and *Phaedrus* means that Shelley discovers the sexual desire between young men. According to the Shelleys' Journals, 'Shelley translates the "Symposium"' early on 9 July 1818 and this 'entire translation', as Notopoulos notes, is 'the result of ten mornings' work' (*PoS*, 382).⁷¹ Other works by Shelley during this period focused on the subject matter of love, including 'On Love', *Discourse*, 'Love's Philosophy', and *Prometheus Unbound*. *Epipsychidion* is regarded as the epitome of Shelley's poetical creation on the subject of ideal love.

Byron comments on Plato's philosophy negatively through his narrator. The narrator argues that Plato's philosophical 'system' (*DJ*, 116.924) of reason limits human sexuality and consists of 'confounded fantasies' (*DJ*, 116.922):

Oh Plato! Plato! you have paved the way,

With your confounded fantasies, to more

Immoral conduct by the fancied sway

Your system feigns o'er the controlless (sic) core

Of human hearts, than all the long array

Of poets and romancers:—You're a bore,

A charlatan, a coxcomb—and have been,

At best, no better than a go-between. (*DJ*, 116.921-28)

Byron's narrator rejects Platonic love and mockingly calls Plato 'a bore' (*DJ*, 116.926) for denying sexual passion in 'human hearts' (*DJ*, 116.925). Like Shelley's bid to rehabilitate Prometheus and Satan,⁷² Byron takes up a Promethean or Satanic rebellion against Plato's sexual morals. Byron's *Don Juan* rejects Platonic love – pure love without sex – and upholds the spiritual and the sensual union between young people as supreme pleasure: 'Such [Platonic] love is innocent, and may exist / Between young persons without any danger, / A hand may first, and then a lip be kist;' (*DJ*, 80.633-35). Byron's narrator emphasises the necessity of passions in life instead of Plato's rational admonishment. Byron's narrator rejects metaphysical and Platonic values, but advocates a materialist *reason* or law in *Don Juan*: 'If people go beyond, 'tis quite a crime, / But not my fault—I tell them all in time' (*DJ*, 80.639-40). Hatred, jealousy, and pain, for Plato, are the symptoms of failing love. In *Don Juan*, Byron describes a loving husband's emotion towards an unfaithful wife: 'A real husband always is suspicious, / But still no less suspects in the wrong place, / Jealous of some one who had no such wishes,' (*DJ*, 99.785-87). Byron's emphasis on the corporeal and anti-Platonic ideas are again exhibited in this physical concept of emotion.

This loftiness or sublimity that works in the mind inevitably instigates strong emotions, including ecstasy and pain. Byron associates the sublime with Greek tragedies. In *Don Juan*, Julia's love for Juan exemplifies the sublime. After partaking of sexual pleasure with Juan,

Julia experiences pain from this temptation and '[t]he tears were gushing from her gentle eyes' (*DJ*, 117.931). In 'his' *On the Sublime*,⁷³ Longinus claims that the most talented poet of 'sublimity' (*LS*, 147) is Euripides because his tragedies convey sublime emotions – positive and negative (*LS*, 147). This emotional sublimity in Julia's 'love' for Juan echoes the suffering of Queen Phaedra, who, in Euripides's *Hippolytus*, tragically loves her stepson:⁷⁴

Phaedra. What sort of a thing do they mean when they say that people ... *love*?

Nurse. A *sweet* thing, girl; yes, and *painful* too.

Phaedra. I have known only the *pain*. [Emphasis added] (74-75)

Recognising the tempest of the mind, Byron alludes to Longinus's ideas of the sublime in *Don Juan*: 'Although Longinus tells us there is no hymn / Where the sublime soars forth on wings more ample;' (*DJ*, 42.333-34). The sublime, for Byron's narrator, is described as a form of substance that moves speedily on soaring 'wings' (*DJ*, 42.334). This physical metaphor, for Longinus and Byron's narrator, is not as poetical as a 'hymn' (*DJ*, 42.333), but a concrete language that demonstrates quirky emotions which are dominated by neural substances. The Longinian aesthetics, in Juan's case, derives from an empiricist principle instead of a metaphysical hypothesis:

He, Juan (and not Wordsworth), so pursued

His self-communion with his own high soul,

Until his mighty heart, in its great mood,

Had mitigated part, though not the whole
 Of its disease; he did the best he could
 With things not very subject to control,
 And turn'd, without perceiving his condition,
 Like Coleridge, into a metaphysician. (*DJ*, 91.721-28)

Byron's narrator heightens Juan's emotional self-fulfillment through the accumulation of sensory experience: 'His [Juan's] self-communion with his own high soul, / Until his mighty heart, in its great mood, / Had mitigated part, ...' (*DJ*, 91.722-24). This 'mitigated part' (*DJ*, 91.724) refers to the negative sublimity or emotion. In other words, his 'great mood' (*DJ*, 91.723) or pleasure can be obtained through a series of different pursuits in life.

Transgressing conventional social boundaries, the adultery or extramarital affair between Julia and Juan is a form of queer pleasure. Juan's hedonist philosophy is, as described by the narrator, detached from Wordsworth's theistic imagination and Coleridge's metaphysical conviction. In Byron's playful pun, Wordsworthian 'solitude' is transformed into a sensual domain: 'By *solitude* I mean a sultan's, *not* / *A hermit's*, with a haram for a grot' [emphasis added] (*DJ*, 87.695-96). This 'solitude' in Byron's satire spurs the young Juan into his sexual exploits. Byron expresses a sexual interpretation of *love*:

'Oh Love! in such a wilderness as this,
 Where transport and security entwine,

Here is the empire of thy perfect bliss,

And here thou art a god indeed divine,

.....

The poet meant, no doubt, and thus appeals

To the good sense and senses of mankind,

The very thing which every body feels,

As all have found on trial, or may find,

That no one likes to be disturb'd at meals

Or love.—I won't say more about 'entwined'

Or 'transport,' as we knew all that before,

But beg 'Security' will bolt the door. (*DJ*, 88.697-712)

This 'Love' (*DJ*, 88.697), in Byron's sexual understanding, encompasses two physical elements: 'entwined' (*DJ*, 89.710) and 'transport' (*DJ*, 89.711). It is clear that this 'entwined' period refers to sexual intercourse and 'transport', like trance, means orgasm. These poetic lines (*DJ*, 88.697-700) quoted by the narrator are transformed into a sexual discourse. Byron aims to heighten this 'very thing' (*DJ*, 88.707) – sex – in a more humane discussion: 'The very thing [sex] which every body feels,' (*DJ*, 88.707). Sexual appetite, Byron's narrator suggests, is like a desire for 'meals' (*DJ*, 88.709) and should be equally satisfied.⁷⁵ Divinity or 'god' (*DJ*, 88.700), in Byron's jest, is at the supreme level of sexual love. Byron's narrator

relates ‘the good sense’ (*DJ*, 89.706) to a bodily or sexual pleasure. Byron’s idea, no doubt, echoes Greek hedonism as well as the principle of pleasure in eighteenth-century British empiricist aesthetics. With this sexual empiricism and hedonism, Byron’s philosophy inevitably breaks from the metaphysics of Plato or the Lakers.

In Byron’s empiricist hedonism, the adventures in love or quest for the sublime are inevitably filled with pleasure and pain. Byron experiences tremendous remorse from his failed relationship with his half-sister, Augusta Leigh, and this disastrous episode is also embedded in his 1816 psychological verse drama – *Manfred*. Inevitably, pleasure and pain co-exist with love. Against Stoicism and Platonism, Byron recognises that love is a natural force from which pleasure can be obtained: ‘Oh Pleasure! you’re indeed a pleasant thing, / Although one must be damn’d for you, no doubt;’ (*DJ*, 119.945-46). The existence of humans and the occurrence of emotion confuse Byron’s narrator, but he still optimistically describes in empiricist terms the journey of life:

Man’s a phenomenon, one knows not what,
And wonderful beyond all wondrous measure;
‘Tis pity though, in this sublime world, that
Pleasure’s a sin, and sometimes sin’s a pleasure;
Few mortals know what end they would be at,
But whether glory, power, or love, or treasure,

The path is through perplexing ways, and when

The goal is gain'd, we die, you know—and then— (*DJ*, 133.1057-1064)

Byron's ideas about human emotion are present in *Manfred* and here he is reminded of the two-edged sword of 'Pleasure' (*DJ*, 133.1060). Hedonist philosophy leads him to the territory of the unknown. Byron suggests that human existence or being is 'a phenomenon' (*DJ*, 133.1057) and the purpose of existence is, thus, to pursue pleasure from 'glory, power, or love, or treasure' (*DJ*, 133.1062) until the termination of this phenomenon or vitality when 'we die' (*DJ*, 133.1064). For Byron, the 'sublime world' (*DJ*, 133.1036) alludes to this hedonist world, full of exchanges of emotion between 'sin' and 'pleasure' (*DJ*, 133.1060). Longinus's 'sublime' aesthetics introduces Byron to emotional philosophy. In *Don Juan in Context*, Jerome J. McGann notes that 'the Longinian tradition' is highlighted in 'Byron's major poetry' and Longinian thoughts 'are those associated with political ideas of freedom' (*DJC*, 12). In Byron's *Concordance*, 'the sublime' and 'sublimity' are used particularly in *Don Juan* and his later works (1423-24).⁷⁶ Byron's inquiry into the sublime aspects of emotion is clearly seen in stanza 29, in which Inez's 'serenity' (*DJ*, 29.226) and 'sublimity' (*DJ*, 29.231), respectively, refer to the peaceful mind in Inez and the disrupted mind in José during Inez's *well-organised* and non-violent revenge on her husband's unfaithfulness:

And then this best and meekest woman [Inez] bore

With such *serenity* her husband's woes,

Just as the Spartan ladies did of yore,

Who saw their spouses kill'd, and nobly chose

Never to say a word about them more—

Calmly she heard each calumny that rose,

And saw *his* (sic) *agonies* with such *sublimity*,

That all the world exclaim'd 'What magnanimity!'

[Emphasis added] (*DJ*, 29.225-32)

The 'sublime world' (*DJ*, 133.1036), according to Byron's narrator, derives from Longinus's aesthetics, in which human emotions are agitated by the physical world. Longinus, in *On the Sublime*, explains that the sublime is 'innate' (*LS*, 57) in the mind to perceive 'the power of forming great conceptions' (*LS*, 57) and 'vehement and inspired passion' (*LS*, 57). Inez's 'magnanimity' (*DJ*, 29.232) or virtues, in theory, leads to the emotionally beautiful – peace, calmness, or 'serenity' (*DJ*, 29.226). This importance of a beautiful or peaceful mind is also desired by Julia:

She [Julia] now determined that a *virtuous* woman

Should rather face and overcome *temptation*,

That flight was base and dastardly, and no man

Should ever give her heart the least sensation;

[Emphasis added] (*DJ*, 77.609-12)

This Platonic reason – not to love but to control ‘temptation’ (*DJ*, 77.610) – falters in Julia’s instance. Byron notes the unnaturalness in Platonism. Nevertheless, the way Julia prevents temptation and passion follows an empiricist principle, that is, ‘... give [the] heart [i.e., mind] the least sensation;’ (*DJ*, 77.612). Julia’s vow that ‘... she never would see Juan more,’ (*DJ*, 76.601) evidences this close relationship between emotion and sense stimuli. Different from Byron’s empiricist hedonism, Julia’s society (representative of empiricist Stoicism) sends Julia to ‘a nunnery’ (*DJ*, 191.1526): ‘Julia was sent into a nunnery, / And there, perhaps, her *feelings* may be *better*’ [emphasis added] (*DJ*, 191.1526-27). In this empiricist framework, solitude (in a nunnery) – or the reduction of stimulants – prevents sexual temptation and may render Julia’s disrupted mind healed or ‘better’ (*DJ*, 191.1527). The sexual stimulant, for Julia, is merely the beautiful Juan. This love story in *Don Juan*, for Byron, maps out a guide to ‘the true sublime’ (*DJ*, 201.1063).

In *Epipsychidion*, Shelley pursues the beautiful and the transcendence of love through death. From line 513 to the end of *Epipsychidion*, Shelley’s escapism or transcendentalism through love grows clear. It suggests that Shelley’s poet-speaker appeals to Emily in terms of a suicide pact: ‘This isle and house are mine, and I have vowed / Thee to be lady of the solitude.—’ (*E*, 513-14). Different from Byron’s concept of the solitary, the ‘solitude’ (*E*, 514) of Emily may allude to her eternal slumber or death. This materialist transcendence, for Shelley, coalesces sense experience with an abstracted world of ideals: ‘Those instruments

[bodily senses] ... / ... / ... make the present last / In thoughts and joys which sleep, but cannot die, / Folded within their own eternity' (*E*, 520-24). Death becomes the couple's chamber where they 'sleep' (*E*, 524) and will never be separated in 'eternity' (*E*, 524).

Different from Byron's hedonism, Shelley's nihilism or materialist idealism of love is strikingly demonstrated in *Epipsychidion*. This type of idealism for Shelley is rooted in his atheistic materialism. Meditating on the bodily and scientific limitations of a materialist worldview, Shelley proposes that death is a transcendence of life and eventually leads to a transcendent realm of 'eternity'. It is suggested in *Epipsychidion* that dying together with Emily is Shelley's death-wish and bid to transcend mortality.

The close connection between the poet-speaker in *Epipsychidion* and Shelley's own biography is reinforced by Shelley himself. Sperry details critical debates on the affinity of Shelley's life and the Poet's narration in *Epipsychidion*.⁷⁷ Shelley instead emphasises that 'the advertisement [to *Epipsychidion*] is *no fiction*' [emphasis added] and that 'the "Epipsychidion" ... is an idealized history of my life and feelings' (qtd. in *SPP* 391).⁷⁸ In this sense, the death of the 'Writer of the following Lines at Florence' before embarking on a 'voyage to one of the wildest of the Sporades' in the Advertisement (*SPP*, 392) and the request to Emily to embark on a deadly 'journey' point to the possibility of Shelley's planned 'double' suicide with Williams.⁷⁹ A range of terms that describe Shelley's physical desire for being 'one' with Emily recur in the last stanza of *Epipsychidion*:

And by each other, till to love and live

Be *one* ...

.....

Our breath shall *intermix*, our bosoms *bound*,

And our veins beat *together*; ...

.....

We shall become *the same*, we shall be *one*

Spirit within two frames, oh! wherefore two?

One passion in twin-hearts, which grows and grew,

'Till like two meteors of expanding flame,

Those spheres instinct with it become *the same*,

Touch, mingle, are transfigured; ever still

Burning, yet ever inconsumable:

In *one another's* substance finding food,

.....

One hope within two wills, *one* will beneath

Two overshadowing mind

[Emphasis added] (*E*, 551-85)

This imagery of union is earlier shown in Shelley's love poems written in 1819. Among these

few subtle poems, the posthumous poem 'Fragment: Wedded Souls' reveals Shelley's

'Platonic love':

I AM as a spirit who has dwelt

Within *his* heart of hearts, and I have felt

His feelings, and have thought *his* thoughts, and know

The inmost converse of *his* soul, the tone

Unheard but in the silence of his blood. [Emphasis added] (1-5)⁸⁰

In this fragment, Shelley expresses that true love is confirmed through physical contact.

Though echoing *Alastor*, Shelley instead mentions his homoeroticism by means of a male genitive – 'his' – in this previously unpublished poem. Differing from this posthumous poem, *Epipsychidion* intentionally conceals Shelley's homosexual love in the language of heterosexual desire.

By contrast Byron, in *Don Juan*, draws on materialist philosophy and naturalist education to emphasise the pleasures of heterosexual desire. Byron's Don Juan is moulded in the shape of Rousseau's Emile – a natural man, Juan follows 'his own high soul' (*DJ*, 91.722) to attain a 'mighty heart' (*DJ*, 91.723). Byron's narrator emphasises Don Juan's education in the episode of widowed Donna Inez: 'And so they [tutors] were submitted first to her, all, / Arts, sciences, no branch was made a mystery / To Juan's eyes, excepting natural history' (*DJ*, 39.310-12). In Inez's formalism for Juan's education, the little Juan's mind is moulded by

strict morals and scientific reason. In *Don Juan*, Byron's attitude towards this scientific or anti-mysterious education is ambivalent. He suggests that his contemporary advanced science and technology, for example bread technology, galvanism, and vaccines (*DJ*, 130.1033-40), still fail to unveil the mystery of human existence – 'Man's a phenomenon, one knows not what,' (*DJ*, 133.1057). Nevertheless, Byron strives to understand this existence in terms of materialist or non-metaphysical philosophy. Unsympathetic to Rousseau's anti-materialist thought, Byron instead sympathises with Lucretius's philosophy and bases this materialist concept on attaining love or happiness. Byron suggests that Lucretius's materialism is like 'wholesome food' (*DJ*, 43.338) to the human mind, but it is too radical to be accepted by his contemporary society or particularly the state whose authority is allied to religion:

'Lucretius'[s] irreligion is too strong / For early stomachs, to prove wholesome food;' (*DJ*, 43.337-38). Louis Crompton points out that '[t]he moral crusade of the Society for the Reformation of Manners' (*BGL*, 61) dismissed in 1738, but revived in 1787 by George III's permission, was renamed 'the Society for the Suppression of Vice' (*BGL*, 61) in 1801, persisting in 'Georgian and Victorian England' (*BGL*, 62). In this social context, Shelley's eagerness for the revival of the Greco-Roman ideas of freedom is now closely connected to Byron's ambition in *Don Juan*. Byron's abhorrence of any kind of bonds and longing for this revival of ancient spirit are suggested in his Dedication: 'Where shall I turn me not to *view* its bonds? / For I will never *feel* them—Italy! / Thy late reviving Roman soul desponds /

Beneath the lie this State-thing breathed o'er thee;' (*DJ*, 'Dedication', 16.121-24). The 'Roman soul' (*DJ*, 'Dedication', 16.123) alludes to the mind without 'bonds' (*DJ*, 'Dedication', 16.121) and this ancient spirit of freedom was revived by Rousseau and Byron.

The affinity of physical beauty and attraction is emphasised in Byron's materialist philosophy of the sublime. This physical passion or emotional sublimity aroused by beautiful appearances is introduced in a few cases in *Don Juan*. Unlike Shelley's focus on intellectual beauty, Byron's descriptions of physical beauty permeate those characters in *Don Juan*. Byron describes Donna Julia's physical beauty and strives to break down the stigma of exogamy or genetic hybridisation between races. In stanza 56, Julia's genetic origin, according to Byron's narrator, is marginalised by a traditional marriage in Spain: '(Her [Julia's] blood was not all Spanish, by the by; / In Spain, you know, this is a sort of sin.)' (*DJ*, 56.443-44). This 'sin' (*DJ*, 56.444) or an exogamous taboo is derived from Julia's *impure* 'blood' (*DJ*, 56.443). Without this cultural or racial prejudice, Byron's aesthetics is, however, based on physiological elements and somewhat forms another type of prejudice. Caroline Franklin also notes this physiological or 'biological' principle: 'The poet [in *Don Juan*] represents the resulting love affair as the comical triumph of *biology*—Julia's libido (I, 60) and Juan's puberty (I, 93)—over *ideology*' [emphasis added] (*BH*, 125-26). Drawing on beauty and cultural history, Bonnie Berry regards physical appearances as a kind of bias even in today's society, apart from 'race, gender, age, economic resources, and physical ability'.⁸¹

Beautiful Julia's genetic background is revealed through her 'grandmother' (*DJ*, 58.463):

This *heathenish cross* restored the *breed* again,

Ruin'd its blood, but *much improved its flesh*;

For, from a root *the ugliest in Old Spain*

Sprung up a branch *as beautiful as fresh*;

The sons no more were *short*, the daughters *plain*:

[Emphasis added] (*DJ*, 58.457-61)

Julia is, therefore, an outstanding product of hybridisation between African and Spanish blood. Byron's philosophy of love is derived from British physiological aesthetics. These aesthetics emphasise the close relationship between physical beauty and love. In this sense, young Julia's beauty is the major factor to attract middle-aged Alfonso, Juan, and even Juan's mother. Byron describes Julia's physical beauty:

Her *glossy hair* was cluster'd o'er a brow

Bright with *intelligence*, and *fair and smooth*;

Her *eyebrow's shape* was like the *aerial bow*,

Her *cheek* all *purple with the beam of youth*,

Mounting, at times, to a *transparent glow*,

As if her *veins* ran *lightning*; she, in sooth,

Possess'd an *air and grace* by no means common:

Her *stature tall*—I hate a dumpy woman.

[Emphasis added] (*DJ*, 61.481-88)

The narrator's claim of 'I hate a dumpy woman' (*DJ*, 61.488) may amuse the reader, but this philosophy of love is based on beautiful characteristics of the body. A 'dumpy' (*DJ*, 61.488) body, for the narrator, violates an aesthetic standard of symmetry and elegance. The quality of hair, eyebrow, cheek, and height are all carefully inspected. From a physiological perspective, eighteenth-century British aesthetician Edmund Burke discovers the changes of human emotion towards perceived beautiful objects: 'Which shews (sic) that beauty, and the *passion caused by beauty*, which I call *love*, ... and the consequent *emotions of the body* which attend what is called *love* ...' [emphasis added].⁸² The descriptions of young Donna Julia's physical beauty echo this aesthetic philosophy.

Beauty subtly affects human emotion and these aesthetic values reinforce Byron's philosophy of love. In *Don Juan*, Juan was born with a perfect face: 'Young Juan wax'd in goodliness and grace; / At six a charming child, and at eleven / With all the promise of as fine a face / As e'er to man's maturer growth was given.' (*DJ*, 49.385-88). This genetic superiority promises Juan's success in sensual adventures among 'women'.⁸³ Byron's narrator describes the adolescent Juan's physical beauty: 'Young Juan now was sixteen years of age, / Tall, handsome, slender, but well knit ...' (*DJ*, 54.425-26). Fascinated by Greek culture, Byron describes physical features in terms of universal archetypes. Those features of being

‘[y]oung’, ‘[t]all, handsome, slender, [and] well knit’ meet aesthetic criteria or perceptual biases. This nature of appreciating physical beauty is emphasised by the Shelley circle and even revisited by cultural historians who dwell on human beauty.⁸⁴ Resonating with Byron’s physical aesthetics, Berry details physical beauty: ‘Physical features such as skin colo[u]r, hair texture, height, weight, eye shape, disabilities and deformities, condition of the teeth, evidence of aging, and “beauty” are important markers for biased treatment’ (*BB*, ix). Reminiscent of the intended creation of a well-proportioned beautiful man in Mary Shelley’s *Frankenstein*, Byron’s *Don Juan* is another focus of the Shelley circle on aesthetic or genetic attraction.

Unlike Byron’s *Don Juan* that expresses a hedonist philosophy, Shelley’s *Epipsychidion* demonstrates his pursuit of the beautiful as a peaceful state of mind or mode of being. *Epipsychidion* presents Shelley’s utopian idealism. From line 383 to the end of this poem, Shelley urges his feminised lover – ‘Lady’ (*E*, 383) or ‘Emily’ (*E*, 408) – to escape with him to start their new life: ‘The day is come, and thou wilt fly with me. / To whatsoe’er of dull mortality / ... / Emily, / A ship is floating in the harbour now,’ (*E*, 388-409). ‘In thoughts and joys which sleep, but cannot die, / Folded within their own eternity’ (*E*, 523-24), the young couple’s love will remain inseparable in death through the power of the imagination:

Before our gate, and the slow, silent night

Is measured by the pants of their calm sleep.

Be this our home in life, and when years heap

Their withered hours, like leaves, on our decay,

Let us become the over-hanging day,

The living soul of this Elysian isle,

Conscious, inseparable, one. ... (*E*, 534-40)

This is Shelley's desire for escapism in pursuit of happiness or the beautiful. This potential suicide pact posed here between the young couple is implied by one of Shelley's first drafts of a Preface to *Epipsychidion*: 'The following Poem was found amongst other papers in the Portfolio of a young Englishman [Shelley] with whom the Editor had contracted an intimacy at Florence, brief indeed, but sufficiently long to render the Catastrophe by which it terminated one of the most painful events of his life' (*SPW*, 424). It suggests that Shelley's anxiety about this homosexual relationship can be concealed through this intended double suicide which 'render the Catastrophe by which it terminated one of the most painful events of his life' (*SPW*, 424). Here 'the Catastrophe' (*SPP*, 424) might allude to a death penalty exacted for homosexuality and this 'one of the most painful events of his life' (*SPW*, 424).

The 'love's rare Universe' (*E*, 589) at the very end of *Epipsychidion* alludes to Dantean outermost Heaven – the Primum Mobile, where Beatrice guides Dante through the Sphere of Fire: 'The winged words on which my soul would pierce / Into the height of love's rare

Universe. / Are chains of lead around its flight of fire.—’ (*E*, 588-90). These ‘chains’ (*E*, 590) remind the reader of the limitation of bodily frames early – Shelley’s unsteady health condition⁸⁵ – as well as that of Shelley’s homosexual desire for an unidentified male in the guise of Emily. Instead, Shelley’s ‘winged words’ (*E*, 588) lead the reader to his untrodden ‘Universe of love’. Shelley’s philosophy of love is connected to ‘eternity’ or immortality through a physical death. In Shelley’s knowledge of physics, this Dantean paradise, like a *black hole*, surpasses the nine planets, all of which are dominated by physical mechanism. By this inference, Shelley’s last line in *Epipsychidion* – ‘I pant, I sink, I tremble, I expire!’ (*E*, 591) – is by no means exclusively a sensual metaphor. Echoing Wasserman, Sperry thinks that the line is a ‘sexual metaphor’ (*SMV*, 180) and ‘ecstasy can be achieved only at the cost of ultimate dissemination and collapse’ (*SMV*, 180). Stuart Peterfreund elaborates this sexual reading and relates ‘the *petit mort* of sexual climax’ to ‘a triumphal return to the Edenic state’.⁸⁶ Shelley ambivalently implies this act of suicide either in the Advertisements or in the final section of *Epipsychidion*. Shelley’s tragic ‘accidental’ drowning is prefigured in the imagery of drowning: ‘I pant, I sink, I tremble, I expire!’ (*E*, 591). Presumably, the coda of *Epipsychidion* is a farewell letter: ‘... Then haste / Over the hearts of men, until yet meet Marina [Mary Shelley] (sic), Vanna [Jane (Giovanna) Williams] (sic), Primus [Edward Williams] (sic),⁸⁷ and the rest, / And bid them love each other and be blest.’ (*E*, 599-602). Shelley struggles between a materialist void and a religious ‘reunion’ with his beloved Mary,

Jane, Edward, and ‘the rest’ (*E*, 600) in Heaven after death. In Shelley’s materialist or atheistic transcendentalism,⁸⁸ self-termination for love reveals divinity or eternity through a Dantean flaming fire: ‘... “Love’s very pain is sweet, / But its reward is in the world divine / Which, if not here, it builds beyond the grave.”’ (*E*, 596-98). Shelley anticipates the physical struggle of dying and likens the pain to the burning fire which prefaces a Dantean paradise. His materialist worldview, in some way, draws him back from this religiously ‘divine’ (*E*, 597) vision and he backs away with a conditional ‘if not here [the divine world]’ (*E*, 598) to return to an atomic worldview – ‘beyond the grave’ (*E*, 598). This concept of the atomic dates back to Shelley’s description of the utopian ‘isle’ (*E*, 478), which, Shelley thinks, is ‘[a]n atom of th’ Eternal’ (*E*, 479). Such aspiring passion, for Shelley, is the substance of love. This materiality is clearly explained in his ‘On Love’, in which Shelley extends David Hartley’s theory of vibrations⁸⁹ to demonstrate the mental physics of love: ‘... if we feel, we would that another’s nerves should vibrate to our own, that the beams of their eyes should kindle at once and mix and melt into our own ... This is Love’ (*SPP*, 503-04). Unlike Byron’s hedonistic pursuit of a love relationship in *Don Juan*, Shelley, like Plato and Kant, understands that excessive physical passions will lead the mind to an inharmonious state.

The Shelley circle – prefiguring those forms of sexual freedom advocated by recent critics, for example Eve K. Sedgwick, Gayle Rubin, and Judith Butler – launches a discourse of *love* in order to construct a more humane society. My inquiry into *Don Juan* (Canto 1) and

Epipsychidion has explored Byron's and Shelley's pursuit of romantic love by demonstrating their sexuality and re-examining their distinct philosophy of love. Prior to emerging queer or LGBT studies⁹⁰ as well as scientific research on love,⁹¹ the complex emotions of love earlier attracted both Byron and Shelley. The Shelley circle's enthusiasm for materiality leads them to bridge gaps between the body and the mind, the physical and the spiritual, and emotion and reason. These younger Romantics (Shelley and Byron) should be admired due to their intellectual practice and profound philosophy of life and courage. Byron's and Shelley's philosophy of love demonstrates their disagreement with contemporary sexual morality and chimes with our current queer discourse which asserts the equality of sexuality.

¹ After their dispersal in Geneva and before their reunion in Venice, Shelley and Byron were still in touch via correspondences between the autumn of 1816 and the summer of 1818. See Percy Bysshe Shelley, *The Complete Works of Percy Bysshe Shelley*, ed. Roger Ingpen and Walter E. Peck, vol. 9 (London: Benn; New York: Gordian, 1965) 195-305. Hereafter *CWPBS* Vol. 9. C. L. Cline, as well as Donald H. Reiman and Neil Fraistat, details the reunion of Byron and Shelley in Italy from August of 1818. See C. L. Cline, *Byron, Shelley and Their Pisan Circle* (Cambridge, MA: Harvard UP, 1952). Donald H. Reiman and Neil Fraistat, eds. *Shelley's Poetry and Prose: Authoritative Texts, Criticism*, 2nd ed. (New York; London: Norton, 2002) 119. Hereafter *SPP*.

² Current critics continue their enthusiasm for the Shelley circle's narration of *love*. Synthesising David Duff's discourse of romance with a wide range of desire-themed criticism of Harold Bloom, Earl R. Wasserman, Michael O'Neill, William A. Ulmer, Barbara Charlesworth Gelpi, and Tilottama Rajan, Mark Sandy suggests the subtle relationship between physical desire and spiritual love in Shelley's *Alastor* and *Epipsychidion* from a 'quest' reading (1-2). See Mark Sandy's forthcoming book chapter: "'Visioned Wanderings': Quest Poetry in *Alastor* and *Epipsychidion*", *Oxford Handbook to Shelley Studies*, ed. Michael O'Neill and Tony Howe (Oxford: Oxford UP, 2011) [Forthcoming] Hereafter 'VW'. Like the popularity of Shelley's love, the issues of Byron's love are still narrated or studied by current critics. See Abigail F. Keegan, *Byron's Othello Self and Voice: Contextualizing the Homographic Signature* (New York: Lang, 2003). Hereafter *BOSV*. Deborah Lutz, *The Dangerous Lover: Gothic Villains, Byronism, and the Nineteenth-Century Seduction Narrative* (Columbus, OH: Ohio State UP, 2006). Hereafter *DL*. Clara Tuite, 'Tainted Love and Romantic Literary Celebrity', *ELH* 74.1 (2007): 59-88. Edna O'Brien, *Byron in Love: A Short Daring Life* (New York: Norton, 2009). For major criticism on Byron and psyche, refer to Louis Crompton, Andrew Elfenbein, Caroline Franklin, Frederick Garber, and Peter J. Manning. See Louis Crompton, *Byron and Greek Love: Homophobia in 19th-Century England* (London: Faber, 1985). Hereafter *BGL*. Andrew Elfenbein, *Byron and the Victorians* (Cambridge: Cambridge UP, 1995). Caroline Franklin, *Byron's Heroines* (Oxford: Clarendon, 1992). Hereafter *BH*. Frederick Garber, *Self, Text, and Romantic Irony: The Example of Byron* (Princeton: Princeton UP, 1988). Peter J. Manning, *Byron and His Fictions* (Detroit: Wayne State UP, 1978). Hereafter *BHF*.

³ Shelley drafted this verse drama in late 1818, but wrote a new one in early 1819, reflecting his conversation with Byron in Venice in August 1818. This is Shelley's posthumous work, first published in Mary Shelley's edition of Shelley's *Posthumous Poems* in 1824. See *SPP*, 119.

⁴ See Percy Bysshe Shelley, *A Discourse on the Manners of the Antient (sic) Greeks Relative to the Subject of Love, Plato: The Banquet*, ed. John Lauritsen (Provincetown, MA: Pagan, 2001) 12-21, 19. Hereafter *DMG*.

⁵ Compared with cultural studies, cultural history emerges in the 1970s and forms a wider discourse to examine miscellaneous cultural phenomena. See Peter Burke, *What Is Cultural History?* 2nd ed. (Cambridge; Malden, MA: Polity, 2008). The first academic society for cultural history, named the International Society for Cultural History, proposed by Peter Burke, was established at the University of Aberdeen, UK, in 2008 and incorporates diverse (human) scientific issues into cultural research. Despite no clear affiliations with the current circle of 'cultural history', Shelley study on history, including Marxism, politics, 'New Historicism', and cultural studies, for Jerrod E. Hogle, is categorised as 'historical—and

cultural-historical—study’ (133), mainly including investigations from Cameron, Foot, McGann, Carrant, Morton, Leask, and Gelpi. See Jerrold E. Hogle, ‘Percy Bysshe Shelley’, *Literature of Romantic Period: A Bibliographical Guide*, ed. Michael O’Neill (Oxford: Clarendon, 1998) 118-42, 133-34. G. S. Rousseau and Roy Porter explore the cultural history of Enlightenment sexuality. See G. S. Rousseau and Roy Porter, Introduction, *Sexual Underworlds of the Enlightenment*, ed. G. S. Rousseau and Roy Porter (Manchester: Manchester UP, 1987) 1-24. Hereafter *SUE*.

⁶ Foucault examined the repression of sexuality in history from the seventeenth century onwards and launched a groundbreaking discourse of sexuality in his study of *The History of Sexuality*. See Michel Foucault, *The Will to Knowledge: The History of Sexuality*, 1976, trans. Robert Hurley, vol. 1 (London: Penguin, 1998) 39. Hereafter *WK*. Other critics of sexuality, especially those currently classified as queer scholars, challenge more sexual morals. See Eve Kosofsky Sedgwick, *Between Men: English Literature and Male Homosocial Desire* (New York: Columbia UP, 1985). Nancy Armstrong and Leonard Tennenhouse, eds. *The Ideology of Conduct: Essays on Literature and the History of Sexuality* (London; New York: Methuen, 1987). Judith Butler, *Gender Trouble: Feminism and the Subversion of Identity* (New York: Routledge, 1990, 1999).

⁷ See Annamarie Jagose, *Queer Theory: An Introduction* (New York: New York UP, 1996) rpt. 2004, 3.

⁸ Robert J. Corber and Stephen Valocchi, *Queer Studies: An Interdisciplinary Reader* (Oxford: Blackwell, 2003) 1.

⁹ Michael O’Neill and John Lauritsen suggest queer ideas in their readings of *Epipsychidion*. O’Neill recognises Shelley’s pre-Foucauldian ideas in this poem. Lauritsen heightens Shelley’s subtle homosexuality that penetrates into this poem. See Michael O’Neill, *The Human Mind’s Imaginings: Conflict and Achievement in Shelley’s Poetry* (Oxford: Clarendon, 1989) 157. Hereafter *HMI*. Regarding Lauritsen’s analysis, see John Lauritsen, ‘Homoeroticism in *Epipsychidion*’, 2008, Web, 16 October 2009, <<http://paganpressbooks.com/jpl/epipsychidion/htm>>. Hereafter ‘HiE’.

¹⁰ Richard C. Sha, *Perverse Romanticism: Aesthetics and Sexuality in Britain, 1750-1832* (Baltimore: Johns Hopkins UP, 2009). Alan Richardson, *The Neural Sublime: Cognitive Theories and Romantic Texts* (Baltimore: John Hopkins UP, 2010). Hereafter *NS*. Particularly see Richardson’s ‘Romantic Incest: Literary Representation and the Biology of Mind’, *NS*, 97-115.

¹¹ See *JMS* Vol. 2, 304.

¹² Modern sexologists, for example Havelock Ellis (1859-1939), particularly relate love and sex to physical emotions. In this sense, sexual emotion is derived from neural systems and hormones. See Vernon W. Grant, *The Psychology of Sexual Emotion: The Basis of Selected Attraction*, 1957 (Westport, CT: Greenwood, 1979). Hereafter *PSE*.

¹³ Don Juan’s ‘innocence’ (he is seduced by Julia) in his pursuit of ‘true love’ or sensual pleasure violates the moral codes of his society. This Byronic character is the counterpart of the poet-figure in Shelley’s *Alastor*. Both of them pursue ‘true love’, but Don Juan is a hedonist and the poet-figure is a stoic.

¹⁴ Lord Byron, *Lord Byron: Selected Letters and Journals*, ed. Leslie A. Marchand (London: Murray, 1982) 21.

¹⁵ ‘Womanizer’, *The Oxford English Dictionary*, Web, 9 Feb. 2011. The Website adopts the spelling of ‘womanizer’ rather than ‘womaniser’ in a British spelling.

¹⁶ Borrowing Freud’s saying – ‘Love is homesickness’ (48) – Deborah Lutz regards a love seeker in Byron’s works as an ‘Erotic Wanderer’ (49), who suffers from ‘the nostalgia of falling in love’ (48) and longs for a return to ‘the mother’s womb’ (48). This nostalgia, in

Crompton's view, is Byron's 'homosexuality' that is embedded in his 'gloomy heroes' (248). See *DL*, 48-67, 48-49. *BGL*, 248.

¹⁷ Earl R. Wasserman, *Shelley: A Critical Reading* (Baltimore; London: Johns Hopkins UP, 1971) rpt. 1975, 418-19, 418. Hereafter *SCR*.

¹⁸ Nathaniel Brown, *Sexuality and Feminism in Shelley* (Cambridge, MA; London: Harvard UP, 1979) 36.

¹⁹ Among Byron critics, for example McGann, who support this argument, Manning particularly relates Don Juan to Byron: 'No contemporary reader of the first canto of *Don Juan* alive to current gossip could have failed to notice that the ostensibly independent characters of the story all reveal Byron' (177). See *BHF*, 177.

²⁰ See 'BV', 121-30.

²¹ This chapter adopts Jerome J. McGann's edition of *Don Juan* (Canto 1) and all quotations, including Byron's Dedication to *Don Juan*, are given stanza and line numbers that have been provided in McGann's edition. See Jerome J. McGann, ed. *Don Juan, The Complete Poetical Works*, by Lord Byron, vol. 5 (Oxford: Clarendon, 1986) rpt. 1992. Hereafter *DJ*.

²² Andrew Elfenbein, 'Byron: Gender and Sexuality', *The Cambridge Companion to Byron*, ed. Drummond Bone (Cambridge: Cambridge UP, 2004) 56-74, 70. Hereafter 'BGS'.

²³ In nineteenth- and twentieth-century behaviourism, major psychologists, including Ivan Pavlov, Edward L. Thorndike, and B. F. Skinner, sensed the direct relationship between stimulants and behaviour. This behaviourist assertion was also employed in education.

²⁴ *BGL*, 15-16.

²⁵ G. S. Rousseau and Roy Porter argue that 'the Age of Enlightenment presents itself as an age of sexual enlightenment as well' (*SUE*, 1).

²⁶ Randolph Trumbach, 'Modern Prostitution and Gender in *Fanny Hill*: Libertine and Domesticated Fantasy', *SUE*, 69-85, 69.

²⁷ Ruddick emphasises that the narrator's narrative in Byron's *Don Juan* is indebted to Sterne's '*Tristram Shandy* and *A Sentimental Journey*'. See W. Ruddick, 'Don Juan in Search of Freedom: Byron's Emergence as a Satirist', *Byron: A Symposium*, ed. John D. Jump (London; Basingstoke: Macmillan, 1975) 113-37, 121.

²⁸ James Soderholm, *Fantasy, Forgery and the Byron Legend* (Lexington, KY: UP of Kentucky, 1996) 90-93. Regarding the homosexual discussion of Byron's 'To Thyrza', Paul Elledge relates this poem to 'Byron's elegy to Edleston' (130). See Paul Elledge, 'Chasms in Connections: Byron Ending (in) *Childe Harold* 1 and 2', *Byron*, 123-37. This article was originally published in *ELH* 62 (1995): 121-48.

²⁹ Alan Rawes, *Byron's Poetic Experimentation: Childe Harold, the Tales, and the Quest for Comedy* (Aldershot; Burlington, VT: Ashgate, 2000) 1.

³⁰ Even though critics equate Emilia to Emily, Emilia is only mentioned in Shelley's epigraph to *Epipsychidion*: 'Verses addressed to the noble and / Unfortunate lady, Emilia V— [supposedly, Viviani], now imprisoned / In the Convent of —' (392). See *SPP*, 392.

³¹ Gayle S. Rubin develops a discourse of 'sexual pluralism' to echo Michel Foucault's argument of sexual autonomy. See Gayle S. Rubin, 'Thinking Sex: Notes for a Radical Theory of the Politics of Sexuality', *Culture, Society and Sexuality: A Reader*, ed. Richard Guy Parker and Peter Aggleton (London: University College London P, 1999) 143-78, 169-71. Hereafter 'TS'.

³² Jerome J. McGann, *Fiery Dust: Byron's Poetic Development* (Chicago; London: U of Chicago P, 1968) 297.

³³ *SUE*, 1.

³⁴ Susan J. Wolfson, 'Don Juan and the Shifting of Gender', *Palgrave Advances in Byron Studies*, ed. Jane Stabler (New York: Palgrave Macmillan, 2007) 257-80, 261, 274. Hereafter

this book title is abbreviated as *PABS*. This article was originally published in Wolfson's *Borderlines: The Shiftings of Gender in British Romanticism* (2006).

³⁵ Hereafter this work is abbreviated to 'PPCT'. See Thomas Hutchinson, ed. *Shelley: Poetical Works* (London: Oxford UP, 1967). Hereafter *SPW*.

³⁶ In Lauritsen's footnote to this subjunctive, the 'lady' is Shelley's male friend. See 'HiE'.

³⁷ After Shelley's tragic death at sea in July of 1822, Mary Shelley, with Leigh Hunt's assistance, published Shelley's posthumous poems in 1824. The poems that understate Shelley's sentiment of same-sex love mainly include 'Love's Philosophy', 'Fragment: Love the Universe To-day', 'Fragment: A Gentle Story of Two Lovers Young', 'Fragment: Love's Tender Atmosphere', and 'Fragment: Wedded Souls'. Regarding Shelley's 1819 love poems, see *SPW*, 582-85.

³⁸ In his Note 18, Lauritsen argues that these 'readers' can recognise Shelley's expressions through their 'gaydar'. See 'HiE'.

³⁹ See Reiman and Fraistat's footnote 3.

⁴⁰ See Reiman and Fraistat's footnote 8, *SSP*, 394.

⁴¹ See John Lauritsen, 'Piecing Together Percy', *Gay and Lesbian Humanist*, Web, 29 September 2009, <<http://www.pinktriangle.org.uk/glh/203/shelley.html>>.

⁴² James A. Notopoulos, *The Platonism of Shelley: A Study of Platonism and the Platonic Mind* (Durham, NC: Duke UP, 1949) 276. Hereafter *PoS*.

⁴³ See Desmond King-Hele, *Shelley: His Thought and Work* (London: Macmillan; New York: St. Martin's, 1960) 270-85, 270. Hereafter *SHTW*.

⁴⁴ Stuart M. Sperry, *Shelley's Major Verse: The Narrative and Dramatic Poetry* (Cambridge, MA: Harvard UP, 1988) 159. Hereafter *SMV*.

⁴⁵ For this inference, see Goslee's Footnote 7. Nancy Moore Goslee, 'Dispersing Emily: Drafting as Plot in *Epipsychidion*', *SPP*, 735-47, 741.

⁴⁶ Lauritsen argues that "'Emily" is not a variant of "Emilia", but stands for Edward Ellerker Williams—Shelley's beloved companion—either as a code name for him or as his nickname'. Lauritsen discovers that 'feminine nicknames' are used by the 'men in the Shelley-Byron circle' and take John Polidori's nickname – 'Polly' – as an example to support this inference. See 'HiE'.

⁴⁷ Sue Chaplin, rev. of *The Orders of the Gothic: Foucault, Lacan and the Subject of Gothic Writing*, by Dale Townshend, and *Queering the Gothic in the Romantic Age: The Penetrating Eye*, by Max Fincher, *BARS Bulletin & Review* 33 (2008): 30-32, 31.

⁴⁸ *SHTW*, 273.

⁴⁹ F. S. Ellis, *A Lexical Concordance to the Poetical Works of Percy Bysshe Shelley* (London: Quaritch, 1892) 417. Hereafter *Concordance*.

⁵⁰ *Concordance*, 417-20

⁵¹ Judith Butler, seen as one of the forerunners of queer theory, challenges 'the foundational categories of sex, gender, and desire' (xxix) in the sexual discourse of (traditional) 'feminism' in order to reshape identity and gender. Judith Butler, Preface, *Gender Trouble: Feminism and the Subversion of Identity*, 1990 (New York; London: Routledge, 1999) xxvii-xxxiii, xxix.

⁵² This sexuality is persistently examined by recent queer theorists. Rubin, for example, articulates the human rights of the sexual minority, for example, gays, lesbians, transsexuals, and other sexual dissidents. Rubin's notion of a sexual hierarchy demonstrates the inequality of sexuality as well as marginalised sexuality that violates heterosexual ideology, in which the 'worse' sex – seen as 'abnormal, unnatural, sick, sinful, [and] "way out"' – includes '[p]romiscuous homosexuality, sadomasochism, fetishism, transsexuality, and cross-generational encounters' (152-53). 'TS', 152-53.

⁵³ Quoted in James Bieri, *Percy Bysshe Shelley: A Biography, Exile of Unfulfilled Reknown, 1816-1822* (Newark, DE: U of Delaware P, 2005) 222-23. Hereafter *PBUR*.

⁵⁴ Crompton points out that 'homosexual and gay' were not used in Byron's time instead of 'Greek love' that 'would have been intelligible to Byron's contemporaries'. See *BGL*, 11.

⁵⁵ Percy Bysshe Shelley, *Shelley on Love: An Anthology*, ed. Richard Holmes (Berkeley; Los Angeles: U of California P, 1980) 232.

⁵⁶ Wasserman, O'Neill, and Sandy all discuss the close connection between light and love in *Epipsychidion*. See *SCR*, 432; 'VW', 10-12.

⁵⁷ Percy Bysshe Shelley, *The Complete Works of Percy Bysshe Shelley*, ed. Roger Ingpen and Walter E. Peck, vol. 9 (London: Ernest Benn, 1965) 334-37, 334. Hereafter *CWPPS* Vol. 9.

Regarding the exact period of his writing of *Don Juan* (Canto 1), Byron points out that it was started on 6 September 1818 and finished on 1 November 1818. See *CWPPS* Vol. 9, 334.

⁵⁸ Sceptical readings (including new criticism or postmodernism, for example William H. Galperin's post-structuralist reading of Byron's *Childe Harold*) reassess the unbreakable connection between the ideas in poetry/literature and the author's voice, which is based on biographical interpretations. Concerning the reading of Byron's *Don Juan*, Jerome J. McGann, however, consciously or unconsciously reads the narrator in the first canto of *Don Juan* as Byron's double and confirms the position of *Don Juan* as an epic in 'comic and satiric forms' (xiii): 'Toward the end of Canto I Byron announced that he was writing an epic poem: "My [Byron's narrator's] poem's epic, and it meant to be / Divided in twelve books ... (200)" (1). This subtle link between Byron and his narrator in *Don Juan* is particularly defended by Christine Kenyon Jones: 'Through a commentary on this aspect of the early stanzas of *Don Juan*, I want to try to make a start in reconstructing Byron's voice ...' (123). With the return of historical discussions in textual studies, Jane Stabler, drawing on 'Richard Cronin, Michael O'Neill, Jerome McGann and Susan Wolfson' (2), reconciles the extremes of approach (reader-centred and author-centred) in Byronic readings. See William H. Galperin, 'The Postmodernism of *Childe Harold*', *Byron*, ed. Jane Stabler (New York: Longman, 1998) 138-51. Hereafter Stabler's edition is abbreviated as *Byron*. Jerome J. McGann, *Don Juan in Context* (London: Murray, 1976) xiii. Hereafter *DJC*. Christine Kenyon Jones, 'Byron's Voice', *The Byron Journal* 37 (2009): 121-30, 123. Hereafter 'BV'. Jane Stabler, *Byron, Poetics and History* (Cambridge: Cambridge UP, 2002) 1-17.

⁵⁹ My understanding of the relativism of reality echoes Jean Baudrillard's concept of 'hyperreality'. In essence, Baudrillard employs this sceptical notion as a strategy to challenge a fixed fact, faith, or truth in history, religion, sociology, politics, and technology. Jean Baudrillard, *Simulacra and Simulation*, 1987, trans. Sheila Glaser (Ann Arbor, MI: U of Michigan P, 1994).

⁶⁰ Hereafter *Don Juan* (Canto 1) in quotations is abbreviated to *DJ*.

⁶¹ Despite his young conviction of religious non-conformism, Wordsworth's later philosophy of *life* is greatly influenced by Thomas Paine, Joseph Priestley, and John Abernethy. This vitalist belief that the 'soul' is independent from matter or the body, for Byron, is a legacy of metaphysics.

⁶² Wordsworth is an obvious example who was allocated a government post.

⁶³ This nursery rhyme was composed early before Byron's time. In Walter Crane's 1909 version, this rhyme is entitled 'The Song of Sixpence'. Crane's Picture Book, as detailed below, helps understand Byron's satire on the first-generation Romantics:

Sing a song of sixpence,
A pocket full of rye.
Four and twenty blackbirds,
Baked in a pie

When the pie was open'd
 The birds began to sing;
 Wasn't that a dainty dish
 To set before the king?
 The king was in his counting-house,
 Counting out his money;
 The queen was in the parlour,
 Eating bread and honey.
 The maid was in the garden,
 Hanging out the clothes;
 There came a little blackbird,
 And nipp'd off her nose.

Walter Crane, *The Song of Sixpence: Picture Book* (London; New York: Lane, 1909) n. pag. Web. Hereafter *SoX*.

⁶⁴ See *SoX*.

⁶⁵ Regarding their debates, refer to my previous chapters.

⁶⁶ John Abernethy, *An Enquiry into the Probability and Rationality of Mr. Hunter's Theory of Life* (London: Longman, 1814) 95.

⁶⁷ Lord Byron, *Lord Byron: Selected Letters and Journals*, ed. Leslie A. Marchand (London: Murray, 1982) 278.

⁶⁸ The Preface to Shelley's Translation of Plato's *The Symposium* is collected by James A. Notopoulos. See *PoS*, 402-03.

⁶⁹ Gerald Enscoe, *Eros and the Romantics: Sexual Love as a Theme in Coleridge, Shelley and Keats* (Paris: Mouton, 1967) 61-98, 98.

⁷⁰ *SPW*, 583.

⁷¹ Notopoulos has an inquiry into Shelley's translation of Plato's *The Symposium*. See *PoS*, 381-401.

⁷² In the Preface to *Prometheus Unbound*, Shelley relates Prometheus to Satan and thinks that 'Prometheus is ... a more poetical character than Satan ...' (206-07). See *SPP*, 206-09, 206-07.

⁷³ The authorship of *On the Sublime*, according to *Britannica Encyclopaedia*, is '... now believed to have been written in the 1st century A.D. by an unknown writer frequently designated Pseudo-Longinus'. W. Rhys Roberts details this problematic authorship of *On the Sublime*. Nevertheless, my later discussion of Longinus's sublime philosophy or reference to 'his' *On the Sublime* is simply to focus on this sublime concept as well as Byron's inclination for this philosophy instead of referring to the authorship. See W. Rhys Roberts, Introduction, *Longinus on the Sublime*, 2nd ed. (Cambridge: Cambridge UP, 1907) rpt. 1935, 1-37, 1-23. Hereafter the book is abbreviated as *LS*.

⁷⁴ In the Shelleys' reading list, Shelley read Euripides's *Works* from 13 January 1815 and, particularly, Euripides's *Hippolytus* from 17 May 1818 when he resided in Italy. See Paul R. Feldman and Diana Scott-Kilvert, eds. *The Journals of Mary Shelley: 1814-1844, Vol. II: 1822-1844* (Oxford: Clarendon, 1987) 646. Hereafter *JMS* Vol. 2.

⁷⁵ Byron's idea of sex approximates the philosophy of the Eastern Socrates, Confucius (552-479 B.C.), in which Confucius relates appetite and lust to human nature. Modern sexual psychologists even follow this notion: 'Sex desire is often referred to as an "impulse," or as an "appetite"'. See *PSE*, 3.

⁷⁶ See Ione Dodson Young, ed. *A Concordance to the Poetry of Byron*, vol. 4 (Austin, TX: Best, 1965) rpt. 1975, 1423-24.

⁷⁷ See *SMV*, 158, 220. Particularly refer to Sperry's first footnote on page 220.

⁷⁸ Echoing Kenneth Neill Cameron and Sperry, Reiman and Fraistat point out more evidence relating to Shelley's anxiety about this poem's circulation. See *SPP*, 391.

⁷⁹ Shelley's homoerotic desire to Williams is suggested in his melancholy poem to Williams entitled 'The Serpent Is Shut Out from Paradise'. See *SPP*, 475-76. Shelley's suicidal intention is stated in his letter to Edward Trelawny dated 18 June 1822. On the day of the shipwreck, according to Trelawny, Shelley may have forced Williams to take the tragic voyage. See Peter Quennell, *Byron: The Years of Fame & Byron in Italy* (London: Collins, 1974) 416. Connected to the tragic Poet's intention with 'Emily' for a suicidal voyage in *Epipsychidion*, this 'double' suicide that Shelley suggests would be with Williams. See *E*, 388-415.

⁸⁰ This fragmentary poem was originally published in Richard Garnett's *Relics of Shelley* in 1862. See *SPW*, 585

⁸¹ Bonnie Berry, *Beauty Bias: Discrimination and Social Power* (Westport, CT: Praeger, 2007) ix. Hereafter *BB*.

⁸² Edmund Burke, *A Philosophical Enquiry into the Origin of Our Ideas of the Sublime and Beautiful*, ed. James T. Boulton, rev. ed. (Oxford: Blackwell, 1987) 91.

⁸³ Byron critics, including Crompton, Elfenbein, and Gross, believe that bowdlerisation permeates *Don Juan* and Byron's other works. That is to say, 'women' here would be men. See *BGL*, 'BGS', and *BEL*.

⁸⁴ Some critics investigate human biases towards physical appearances by disclosing cultural phenomena and genetic determinism. Peter N. Stearns, *Fat History: Bodies and Beauty in the Modern West* (New York: New York UP, 1997). Sander L. Gilman, *Making the Body Beautiful: A Cultural History of Aesthetic Surgery* (Princeton: Princeton UP, 1999). Nancy Etcoff, *Survival of the Prettiest: The Science of Beauty* (New York: Anchor, 1999). Also, refer to *BB*.

⁸⁵ Shelley's health in Italy was mentioned in Mary Shelley's Preface to the *Volume of Posthumous Poems of Mrs. Shelley*: 'Ill health and continued pain preyed upon his [Shelley's] powers; and the solitude in which we lived, particularly on our first arrival in Italy ...; but, when in health, his spirits were buoyant and youthful to an extraordinary degree' (xiii-xiv). *SPW*, xiii-xv, xiii-xiv.

⁸⁶ Stuart Peterfreund, *Shelley Among Others: The Play of the Intertext and the Idea of Language* (Baltimore: Johns Hopkins UP, 2002) 282.

⁸⁷ Regarding the analogue of those names, see *PPS*, 407.

⁸⁸ The concept of transcendentalism found an affinity with Christianity since the eighteenth century. Kant, Wordsworth, and Coleridge all followed in varying ways this metaphysical concept to explore the human mind. See 'Transcendentalism', *Stanford Encyclopaedia of Philosophy*, 7 Mar. 2011, Web, 19 May 2011, <<http://plato.stanford.edu/entries/transcendentalism/#1>>.

⁸⁹ Shelley's understanding of Hartley's principle of neural vibrations for sensations derives from William Drummond's *Academical Questions* (1805), which, according to A. M. D. Hughes, Shelley reads '[i]n the spring of 1812' (241). See A. M. D. Hughes, *The Nascent Mind of Shelley* (Oxford: Clarendon, 1947) rpt. 1971, 241. William Drummond, *Academical Questions*, 1805 (Delmar, NY: Scholars, 1984) 289-95.

⁹⁰ The term LGBT or GLBT is an acronym referring to the sexual minority of lesbian, gay, bisexual, and transgendered (transsexual) people. LGBT studies are developed from feminism, gay/lesbian studies, and sexuality or queer studies. Since the 1990s, the term LGBT or GLBT has been largely adopted by academic institutions, for example LGBT studies at Yale University. See 'LGBT Studies at Yale University', Yale U, Web, 23 Nov. 2010, <<http://www.yale.edu/lgbts/>>.

⁹¹ In the mid-twentieth century, scientific evidence for the relationship between love and

sexuality was ‘first’ (though indebted to Havelock Ellis) released in Alfred Kinsey’s *Sexual Behaviour in the Human Male* (1948). The science of love attracted more researchers afterwards.

AFTERWORD

Before and After the Shelley Circle 1812-1821: Cognitive Science and the Beauty Industry

The issue of emotion has been widely discussed across different disciplines,¹ but my thesis demonstrates how the Shelley circle reassessed long eighteenth-century philosophical and scientific ideas. Shelley, for example, meditates on the science of the mind and emotion through reconciling with one another various Enlightenment philosophies, including metaphysics, empiricism, atheism, and materialism. This circle's collective work exhibits its revised philosophy of the human mind, but also registers the circle's disagreement with the metaphysical conviction of the first-generation Romantics. In so doing, this circle's Romantic responses anticipate much of today's scientific understanding of the mind and emotion, especially, in cognitive science. Similar to the Shelley circle's philosophical view of the mind, current cognitive research adopts scientific or materialist principles and hypotheses to explore the human mind. My concept of the 'materiality of emotion'² draws on distinct disciplines within the humanities and the sciences to articulate this Romantic re-imagining of its eighteenth-century philosophical legacy and prefiguring of later developments in cognitive science and science of the emotions. I also employ this concept to explore the Shelley circle's scientific understanding of life (or vitality), as well as the human mind. Since those Enlightenment and Romantic ideals of a well-rounded education stressed a continuity of knowledge — the problematisation of which reached its peak in the twentieth century — the

perceived gap between the sciences and the humanities has been increasingly bridged.

Reviving earlier debates between Thomas Henry Huxley and Mathew Arnold, twentieth-century commentators, including C. P. Snow, Thomas Kuhn, and Aldous Huxley, recognised the necessity of interdisciplinarity between those two opposed camps of science and the humanities.³ A further criss-crossing of boundaries between literature and science has also been promoted by recent interdisciplinary endeavours within literary studies.⁴ This ethos of interdisciplinarity has been equally practised within studies of British Romanticism. Critics, such as Alan Richardson and Denise Gigante, explore science in the context of British Romantic studies.⁵ Richardson draws on English Romantic texts and the history of brain studies. Distinctive from Richardson's interests in neuroscience and Romanticism, Gigante premises her Romantic readings on life science or biology.

My argument resonates with neuroscientific approaches — or what has recently been termed 'cognitive historicism' — to Romantic studies in the context of eighteenth-century emotional philosophy.⁶ My thesis has explored the Shelley circle's gravitation towards the science of its own day and its anticipation of contemporary cognitive science or neuroscience. My term 'materiality of emotion' seeks to articulate how the Shelley circle understood and sought to redefine materialist philosophy and the human mind and emotion. Contemporary cognitive science and the science of emotion are also grounded in a similar concept of the 'materiality of emotion' and their research can be traced back to modern experimental

psychology founded by William James.⁷ Despite being indebted to Lockean empiricism and eighteenth-century philosophy of emotion (such as aesthetics and physiognomy), James's physiological psychology of emotion sketches out a fundamental discourse for later 'cognitive sciences'.⁸ Cognitive neuroscience encompasses many discourses about the mind, the brain, and the emotions. Literary studies of the mind have ample opportunities to participate in this conversation. Richardson has examined the relationship between British Romantic literature and neuroscience. Adela Pinch, for example, approaches the subject of emotion in Romantic literature. Eighteenth-century aesthetics, empiricism, phrenology, physiognomy are all incorporated in my own sense of 'cognitive historicism of emotion'. Different from other similar readings, my readings of selected texts by the Shelley circle demonstrate the extent to which second-generation Romantics had sympathy with the science of the mind that encompassed the non-physical and physical world and the self.

The Shelley circle exercises both scientific reasoning and scepticism in its major works. *Queen Mab*, *Alastor*, *Manfred*, *Frankenstein*, *Don Juan*, and *Epipsychidion* all demonstrate a materialist world view that problematises our experience and concept of being. This circle's explorations of human emotions and the worth of existence echo religious values, but this group inclines towards an atheistic and materialist worldview. 'Particles' in this circle's atomistic understanding are evidenced in twentieth- and twenty-first-century neuroscience. PET (positron emission tomography) and fMRI (functional Magnetic Resonance Imaging),

for example, are cutting-edge apparatuses used to detect these ‘particles’ or molecules in neurons.⁹ Current neuroscientists locate a variety of neural substances in the brain that affect human cognition, personalities, behavioural modes, the quality of life, and even social orders.¹⁰ Byron and the Shelleys, as seen in my interpretations of their selected works in my thesis, demonstrate their humanistic concerns which reach beyond traditional scientific discourses. The Shelley circle’s philosophy, although grounded in scientific reason, aspires beyond rationality to the attainment of ultimate happiness.

Empiricist or physiological aesthetics, initially discussed in the eighteenth century, is exhibited in the Shelley circle’s selected texts. Based on Lockean empiricism, the mind receives various emotions and feelings through outer stimulations. Eighteenth-century aesthetics, materialism, and physiognomy share a common inheritance in empiricism. This empiricist philosophy influences modern psychology¹¹ and continues to play an illuminating role in cognitive neuroscience. This Enlightenment philosophy helps us to understand the subtle connection between the mind and the body and further relates to advanced sciences of emotion, including cognitive neuropsychology, beauty medicine (ASPS),¹² and even robotics (Kismet).¹³ In the discussion of physical beauty, facial expression, and emotion, eighteenth-century physiognomy is recognised as the precursor of Darwinian emotional science and current cognitive science.¹⁴ For example, Johann Caspar Lavater, comprehensively, systematises physiognomy in his *Essays on Physiognomy* and relates

physical appearances to mental activity. Eighteenth-century sentimentalist writers, including Laurence Sterne, Henry Mackenzie, Johann Goethe, William Godwin, and Mary Wollstonecraft, also substantially describe physiognomy and ‘sensibility’ (or emotion) in their works. These literary representations of emotion mirrored philosophical ideas from aesthetics and physiognomy about the interconnection between physiology and emotion and later influenced the Shelley circle.

Frankenstein’s ‘sublimely’ ambitious science (galvanism) also testifies to the Shelley circle’s interest in ‘pre-cognitive’ science. Mary Shelley’s *Frankenstein* explores the relationship between physiology, emotions, and aesthetics (the beautiful and the ugly) and eventually anticipates how these ideas persist in our current practices of cosmetic surgery. Cosmetic surgery, growing out of reconstructive medicine, connects with the emotions of those afflicted with or suffering from some kind of physical deformity. Genetic, evolutionary, and environmental factors influence human attitudes towards, and cognition of, the beautiful or ugly. The Monster’s hideousness and his hope for beauty and happiness – classified as a high state of positive emotion – are by no means fictional, but such desires and feelings were also familiar to the fraught personal and political history of those members of the Shelley circle.

Cultural historians of cosmetic surgery, Sander L. Gilman,¹⁵ for instance, have noted the mental trauma upon those patients who are afflicted with deformities. Not as advanced as

current medical treatment, so-called ‘vain’ surgery intended to enhance physical beauty had been discouraged until better techniques of anaesthesia (in the form of ether) were employed by William Thomas Green Morton on 16 October 1846.¹⁶ Without the assistance of anaesthesia — meaning ‘without sensation’ — such operations could become brutal and torturous acts. Certainly, the personal experiences of patients testify as much. In September 1811, this sublime quest of science for physical well-being caused horrifying pain and was experienced by Fanny Burney, who underwent an operation without anaesthetic: ‘When the dreadful steel was plunged into the breast ... I [Burney] began a scream that lasted unintermittingly during the whole time of the incision’¹⁷ Byron also experienced similar pain while being treated for his foot correction in a ‘wooden contraption’.¹⁸ This surgical treatment, for Byron, may have promised a ‘normal’ body or beauty, but it ended up unsuccessful. In the age of less advanced anaesthesia – as in Byron’s time – the excruciating pain was the only hope and means to attain beauty. For this reason, the pursuit of physical beauty, especially a finely featured face, in the eighteenth century attracted no patient who was willing to endure such pain. Consequently, cosmetics became popular in the eighteenth-century society. This means of facial modification without undergoing surgery means that the cosmetics business sold ‘hope’ and the customer could learn from ‘beauty books’ how to achieve physical beauty.¹⁹ Such ‘hope’ undoubtedly engendered positive emotions in the consumer of such goods. Physical beauty, though comprised by different

factors and criteria is, ultimately, connected to self-esteem and social resources.²⁰

The eighteenth-century culture of beauty, inevitably, influences Mary Shelley and inspires her scientific imagination to examine the subtle relationship between emotions and physical beauty.²¹ When she read her mother's *Vindication of the Rights of Woman* (1792), Mary Shelley understood this yen for bodily modifications amongst women in the eighteenth century and her mother's criticism on the misuse of female beauty.²² These complex attitudes towards beauty are reflected in Frankenstein's self-debates about whether the female monster should be created beautiful.²³ In *Frankenstein*, Mary Shelley explained her own concern about the close relationship between physical beauty and happiness.²⁴ Despite the fact that happiness or an emotion of love does not merely rely on physical beauty, but on more complicated conditions (including behaviour, personality, attachment, economy, race, health, gender, education, nationality, religion, social status, and sexual orientation), physical beauty plays a critical role in each and every one of these aspects. This issue of the interrelations between physical beauty and love also lies at the heart of Shelley's *Queen Mab* and Byron's *Don Juan*.²⁵

Frankenstein's galvanic experimentation, derived from Aldini's experiments on the human body, testify to the complex mutuality between the sublime and the beautiful of the body.²⁶ The galvanism of Mary Shelley's day sought to re-animate matter and predicts the sublime aims of cosmetic surgery, which seeks out a new 'life' from the ugly to the beautiful,

from isolation to attachment. Mary Shelley recognises the importance of such physical beauty when she delineates the defective experiment as the origin of the Monster's miseries and further suggests medical ethics. Like Aldini's understanding of the close relationship between electrical physiology and emotion, demonstrated in his galvanic experiment for 'melancholy madness',²⁷ Mary Shelley's galvanic practice introduces the reader to two vital elements: life and emotion. These two elements are complicated and dominated by what I conceive of in this thesis as the 'materiality of emotion'.

As seen in the final canto of *Queen Mab*, a secular 'heaven' in Shelley's concept comprises health, freedom, and love. This concept of health suggests the importance of the body as well as the mind. The Shelley circle's philosophy of emotion is framed in empiricist and materialist terms even though this circle's humanist spirit approximates something close to religious or spiritual convictions. Yet, in this circle's notion, the body and its senses dominate all living existence. Despite their denial of orthodox religion and its institutions, the Shelley circle draws on science and literature to map out the inner life of emotions, inextricably, welded to the outer life of the body by which we experience and judge the worth of our existences.

Notes

¹ A diversity of areas that discuss emotion include psychology, psychiatry, computer science, biology, philosophy, cultural history, psychoanalysis, literary studies, nursing, sociology, the arts, politics, education, and religion. Their focus may vary, but their interrelations are inevitable.

² For the detailed definition of this term, see my Introduction, 3-6. Hereafter Introduction.

³ See Introduction, 24-26.

⁴ Like a number of editors focusing on science and literature, Sharon Ruston and Bruce Clarke and Manuela Rossini recently continued to demonstrate diverse aspects of literature and science studies. See Sharon Ruston, *Literature and Science* (Woodbridge; Rochester, NY: Brewer, 2008). Bruce Clarke, and Manuela Rossini, eds. *The Routledge Companion to Literature and Science*, 2010 (Abingdon; New York: Routledge, 2011). Charlotte Sleight has recently published a monograph on literature and science. See Charlotte Sleight, *Literature and Science* (Basingstoke; New York: Palgrave Macmillan, 2010).

⁵ Different from my focus on the Shelley circle, Richardson and Gigante investigate scientific ideas received by other Romantics, for example, William Blake, William Wordsworth, Jane Austen, and John Keats. See Alan Richardson, *British Romanticism and the Science of the Mind* (Cambridge: Cambridge UP, 2001); *The Neural Sublime: Cognitive Theories and Romantic Texts* (Baltimore: Johns Hopkins UP, 2010). Denise Gigante, *Life: Organic Form and Romanticism* (New Haven; London: Yale UP, 2009).

⁶ See the Preface to this thesis, iii-xi, iii.

⁷ James's *The Principles of Psychology* (1890) connects biology and physiology to the discussion of the mind and the emotions. William James, *The Principles of Psychology*. 3 vols. Cambridge, MA: Harvard UP, 1981. Nevertheless, the Persian physician Avicenna (980-1037) early touched on mental activity in the brain. His *The Canon of Medicine* is regarded as the 'earliest' work in neuroscience. See M. R. Bennett, and P. M. S. Hacker, eds. *Philosophical Foundations of Neuroscience* (Malden, MA: Blackwell, 2003) rpt. 2004, 22.

⁸ James drew matter to the mind, based on his own interest in popular philosophy and physiology, and later published *Essays in Radical Empiricism* in 1912. William James, *The Will to Believe and Other Essays in Popular Philosophy*, 1897 (New York: Cosimo, 2007); *Essays in Radical Empiricism*, 1912 (New York: Cosimo, 2007). Hereafter the latter book is abbreviated to *ERM*. Robert Andrew Wilson, and Frank C. Keil, *The MIT Encyclopaedia of the Cognitive Sciences* (Cambridge, MA: MIT, 2001) 275.

⁹ Mark F. Bear, Barry W. Connors, and Michael A. Paradiso, *Neuroscience: Exploring the Brain*, 3rd ed. (Baltimore; Philadelphia: Williams, 2007) 178. Hereafter *NEB*.

¹⁰ See *NEB*.

¹¹ Refer to James's *ERM*. After James, cognitive psychologists, for example, Jean Piaget, continue to share an interest in physicality, empiricism, and the human mind. See Jean Piaget, *Biology and Knowledge: An Essay on the Relations Between Organic Regulations and Cognitive Processes*, 1966 (Chicago: U Chicago P, 1971).

¹² The American Society of Plastic Surgeons, 20 Feb. 2011, Web. Hereafter ASPS.

¹³ Kismet, 20 Feb. 2011, Web.

¹⁴ As regards Charles Darwin's scientific studies of emotion, see Charles Darwin, *The Expression of the Emotions in Man and Animals*, 1872 (Cambridge: Chadwyck-Healey, 1991).

¹⁵ Sander L. Gilman. *Creating Beauty to Cure the Soul: Race and Psychology in the Shaping of Aesthetic Surgery* (Durham, NC: Duke UP, 1998); *Making the Body Beautiful: A Cultural*

History of Aesthetic Surgery (Princeton: Princeton UP, 1999).

¹⁶ Manjushree Ray, and Enakshi Saha, *Anaesthesia for Undergraduates and Practitioners* (Kolkata: Academic, 2008) 1.

¹⁷ Quoted in Richard Holmes, *The Age of Wonder: How the Romantic Generation Discovered the Beauty and Terror of Science* (Hammersmith; London: Harper, 2009) 305-06, 306.

¹⁸ Benita Eisler, *Byron: Child of Passion, Fool of Fame* (London: Hamilton, 1999) 39.

¹⁹ Morag Martin, *Selling Beauty: Cosmetics, Commerce, and French Society, 1750-1830* (Baltimore: Johns Hopkins UP, 2009) 20-21.

²⁰ For relevant inquiries, see Paula Black, *The Beauty Industry: Gender, Culture, Pleasure* (Abingdon; New York: Routledge, 2004) 40-100; Nancy Etcoff, *Survival of the Prettiest: The Science of Beauty* (New York: Anchor, 1999). Bonnie Berry, *Beauty Bias: Discrimination and Social Power* (Westport, CT: Praeger, 2007).

²¹ In their *History of a Six Weeks' Tour*, Mary Shelley, here and there, pointed to their observations of human physical appearances, as well as attraction, when abroad on the Continent, for example, during their trips to France and Germany. See Mary Shelley, *History of a Six Weeks' Tour*, 1817 (Oxford: Woodstock, 1987).

²² Nancy Fredricks, 'On the Sublime and Beautiful in Shelley's *Frankenstein*', *Essays in Literature* 23.2 (1996): 178-89, 179.

²³ See Mary Shelley, *Frankenstein: The 1818 Text, Contexts, Nineteenth-Century Responses, Modern Criticism*, ed. J. Paul Hunter (New York; London: Norton, 1996) 114. Hereafter *F*.

²⁴ See Chapter 5, 193-200.

²⁵ See Chapter 2, 51-55; Chapter 6, 281-84.

²⁶ The creature is originally designed beautiful, but turns out horrible. See *F*, 34.

²⁷ Sydney Smith, et al. 'Aldini's Account of the Late Improvements in Galvanism', *The Edinburgh Review, or Critical Journal*, vol. 3 (London: Longman, 1804) 194-98, 197, Web.

BIBLIOGRAPHY

Primary Sources:

Lord Byron:

Byron, Lord. *Byron: A Self-Portrait: Letters and Diaries 1798 to 1824*. Ed. John Murray. Vol.

1. London: Murray, 1950.

---. *Byron's Poetical Works*. Ed. Frederick Page. London; Oxford: Oxford UP, 1970. Rpt.

1979.

---. *Childe Harold's Pilgrimage. Lord Byron: The Complete Poetical Works: Volume II*. Ed.

Jerome J. McGann. Oxford: Clarendon, 1980.

---. *Don Juan. The Complete Poetical Works. Vol. 5*. Ed. Jerome J. McGann. Oxford:

Clarendon, 1986. Rpt. with corr. 1992.

---. *Lord Byron: Selected Letters and Journals*. Ed. Leslie A. Marchand. London: Murray,

1982.

---. *Manfred, Lord Byron: The Major Works*. Ed. Jerome J. McGann. Oxford: Oxford UP,

1986.

Mary Wollstonecraft Shelley:

Shelley, Mary Wollstonecraft. *Frankenstein; or, The Modern Prometheus*. Ed. Harold Bloom.

1965. New York: Signet, 1994.

---. *Frankenstein; or, The Modern Prometheus*. Ed. M. K. Joseph. Oxford: Oxford UP, 1969.

Rpt. 1998.

---. *Frankenstein; or, The Modern Prometheus: The 1818 Text*. Ed. James Rieger. Chicago: U of Chicago P, 1974. Rpt. 1982.

---. *Frankenstein; or, The Modern Prometheus: The 1818 Text*. Ed. Marilyn Butler. 1969. Oxford; New York: Oxford UP, 1998.

---. *Frankenstein: The 1818 Text, Contexts, Nineteenth-Century Responses, Modern Criticism*. Ed. J. Paul Hunter. New York; London: Norton: 1996.

---. *History of a Six Weeks' Tour*. 1817. Oxford: Woodstock, 1987.

---. *The Journals of Mary Shelley: 1814-1844*. Ed. Paula R. Feldman and Diana Scott-Kilvert. 2 vols. Oxford: Oxford UP, 1987.

---. *Mary Shelley Frankenstein: Complete, Authoritative Text with Biographical, Historical, and Cultural Contexts, Critical History, and Essays from Contemporary Critical Perspectives*. Ed. Johanna M. Smith. 2nd ed. Boston; New York: Bedford; St. Martin's, 2000.

---. *Mary Shelley Frankenstein; or, The Modern Prometheus*. Ed. Maurice Hindle. Rev. ed. London: Penguin, 2003.

---. *Mary Wollstonecraft Shelley, Vol. IX, The Frankenstein Notebooks, Part One*. Ed. Charles E. Robinson. New York; London: Garland, 1996.

---. *The Novels and Selected Works of Mary Shelley*. Ed. Pamela Clemit. Vol. 2. London:

Pickering, 1996.

Shelley, Mary Wollstonecraft, [and] Percy Bysshe Shelley. *Frankenstein; or, The Modern Prometheus, the Original Two-Volume Novel of 1816-1817 from the Bodleian Library Manuscripts*. Ed. Charles E. Robinson. Oxford: Bodleian Library, 2008.

Percy Bysshe Shelley:

Shelley, Percy Bysshe. *A Discourse on the Manners of the Antient Greeks Relative to the Subject of Love, Plato: The Banquet*. Ed. John Lauritsen. Provincetown, MA: Pagan, 2001.

---. *The Best Letters of Percy Bysshe Shelley*. Ed. Shirley Carter Hughson. Chicago: McClurg, 1892.

---. *The Complete Poetry of Percy Bysshe Shelley*. Ed. Donald H. Reiman and Neil Fraistat. 2 vols. Baltimore; London: Johns Hopkins UP, 2000-2004.

---. *The Complete Works of Percy Bysshe Shelley*. Ed. Roger Ingpen and Walter E. Peck. 10 vols. London: Benn, 1965.

---. *The Esdaile Notebook: A Volume of Early Poems*. Ed. Kenneth Neill Cameron. London: Faber, 1964.

---. *Essays, Letters from Abroad, Translations and Fragments*. Ed. Mary Shelley. New ed. London: Moxon, 1845. Web.

---. 'On The Symposium, or Preface to the Banquet of Plato'. *Shelley's Literary and Philosophical Criticism*. Ed. John Shawcross. London: Frowde, 1909.

---. *The Prose Works of Percy Bysshe Shelley*. Ed. Eugene Bernard Murray. Vol. 1. New York: Oxford UP, 1993.

---. *Shelley Memorials: From Authentic Sources*. Ed. Jane Gibson Shelley. London: Smith, 1859. Web.

---. *Shelley on Love: An Anthology*. Ed. Richard Holmes. Berkeley; Los Angeles: U of California P, 1980.

---. *Shelley's Poetry and Prose. Authoritative Texts, Criticism*. Ed. Donald H. Reiman and Neil Fraistat. 2nd ed. New York; London: Norton, 2002.

---. *The Wandering Jew*. Ed. Bertram Dobell. London: Reeves, 1887.

---. *Zastrozzi: A Romance*. London: Hesperus, 2002.

Secondary Sources:

Abernethy, John. *An Enquiry into the Probability and Rationality of Mr. Hunter's Theory of Life*. London: Longman, 1814.

Acosta, Ana M. *Reading Genesis in the Long Eighteenth Century: From Milton to Mary Shelley*. Aldershot; Burlington, VT: Ashgate, 2006.

Aldiss, Brian Wilson. *Supertoys Last All Summer Long: And Other Stories of Future Time*. New York: Griffin, 2001.

Allsup, James O. *The Magic Circle: A Study of Shelley's Concept of Love*. Port Washington,

NY; London: Kennikat, 1976.

Armstrong, Nancy, and Leonard Tennenhouse, eds. *The Ideology of Conduct: Essays on Literature and the History of Sexuality*. London; New York: Methuen, 1987.

Austin, Andrea. 'Frankie and Johnny: Shelley, Gibson, and Hollywood's Love Affair with the Cyborg'. *Romanticism on the Net* 21 (2001). Web.

Baldick, Chris. *In Frankenstein's Shadow: Myth, Monstrosity, and Nineteenth-Century Writing*. Oxford: Clarendon, 1987.

Barrell, Joseph. *Shelley and the Thought of His Time: A Study in the History of Ideas*. New Haven: Yale UP, 1947. Rpt. 1967.

Baudrillard, Jean. *Simulacra and Simulation*. 1987. Trans. Sheila Glaser. Ann Arbor, MI: U of Michigan P, 1994.

Bear, Mark F., Barry W. Connors, and Michael A. Paradiso. *Neuroscience: Exploring the Brain*, 3rd ed. Baltimore; Philadelphia: Williams, 2007.

Bennett, M. R., and P. M. S. Hacker, eds. *Philosophical Foundations of Neuroscience*. Malden, MA: Blackwell, 2003. Rpt. 2004.

Berkeley, George. *A Treatise Concerning the Principles of Human Knowledge, British Empirical Philosophers: Locke, Berkeley, Hume, Reid and J. S. Mill*. Ed. A. J. Ayer and Raymond Winch. London: Routledge, 1952.

Berman, David. *A History of Atheism in Britain: From Hobbes to Russell*. London; New York:

Routledge, 1990.

Berry, Bonnie. *Beauty Bias: Discrimination and Social Power*. Westport, CT: Praeger, 2007.

Bieri, James. *Percy Bysshe Shelley: A Biography, Exile of Unfulfilled Reknown, 1816-1822*.

Newark, DE: U of Delaware P, 2005.

Black, Paula. *The Beauty Industry: Gender, Culture, Pleasure*. Abingdon; New York:

Routledge, 2004.

Bloom, Harold, ed. *Bloom's Modern Critical Interpretations: Frankenstein*. Rev. ed. New

York: Chelsea, 2007.

---. *Shelley's Mythmaking*. Ithaca, NY: Cornell UP, 1969.

Bobbio, Norberto. *Thomas Hobbes and the Natural Law Tradition*. Trans. Daniela Gobetti.

Chicago; London: U of Chicago P, 1993.

Bone, Drummond, ed. *The Cambridge Companion to Byron*. Cambridge: Cambridge UP,

2004.

Botting, Fred. *Making Monstrous: Frankenstein, Criticism, Theory*. Manchester: Manchester

UP, 1991.

---. 'Virtual Romanticism'. *Romanticism and Postmodernism*. Ed. Edward Larrissy.

Cambridge: Cambridge UP, 1999. 98-112.

Bradley, T., R. Batty, and A. A. Noehden. 'Prof. Aldini's Galvanic Experiments'. *The Medical and Physical Journal* 9 (1803): 382-84. Web.

- Brewer, William D. *The Mental Anatomies of William Godwin and Mary Shelley*. Cranbury, NJ; London; Ontario: Associated UP, 2001.
- . *The Shelley-Byron Conversation*. Gainesville, FL: UP of Florida, 1994.
- Brown, Nathaniel. *Sexuality and Feminism in Shelley*. Cambridge, MA; London: Harvard UP, 1979.
- Bruhn, Mark J. 'Shelley's Theory of Mind: From Radical Empiricism to Cognitive Romanticism'. *Poetics Today* 30.3 (2009): 373-422.
- Buell, Llewellyn M. 'Byron and Shelley'. *Modern Language Notes* 32 (1917): 312-13.
- Burke, Edmund. *A Philosophical Enquiry into the Origin of Our Ideas of the Sublime and Beautiful*. Ed. James T. Boulton. Rev. ed. Oxford: Blackwell, 1987.
- Burke, Peter. 'Is There a Cultural History of the Emotions?' *Representing Emotions: New Connections in the Histories of Art, Music, and Medicine*. Ed. Penelope Gouk and Helen Hills. Aldershot; Burlington, VT: Ashgate, 2005. 35-47.
- . *What Is Cultural History?* 2nd ed. Cambridge; Malden, MA: Polity, 2008.
- Butler, Judith. *Gender Trouble: Feminism and the Subversion of Identity*. New York: Routledge, 1990. Rpt. 1999.
- Butler, Marilyn. *Romantics, Rebels and Reactionaries: English Literature and Its Background, 1760-1830*. Oxford: Oxford UP, 1981.
- Caldwell, Janis McLarren. *Literature and Medicine in Nineteenth-Century Britain: From*

- Mary Shelley to George Eliot*. Cambridge: Cambridge UP, 2004.
- Cardinale, Philip J. 'Lord Byron, Virgil, and Thyrsa'. *Byron: Heritage and Legacy*. Ed. Cheryl A. Wilson. New York: Palgrave-Macmillan, 2008. 93-102.
- Casey, Timothy K. 'Nature, Technology, and the Emergence of Cybernetic Humanity'. *Is Human Nature Obsolete? Genetics, Bioengineering, and the Future of the Human Condition*. Ed. Harold W. Baillie and Timothy K. Casey. Cambridge, MA: MIT, 2005.
- Chaplin, Sue. Rev. of *The Orders of the Gothic: Foucault, Lacan and the Subject of Gothic Writing*. By Dale Townshend. *Queering the Gothic in the Romantic Age: The Penetrating Eye*. By Max Fincher. *BARS Bulletin & Review* 33 (2008): 30-32.
- Childers, Joseph, and Gary Hetzi. *The Columbia Dictionary of Modern Literary and Cultural Criticism*. New York: Columbia UP, 1995.
- Gill, Christopher, ed. and intro. *The Symposium*. By Plato. London: Penguin, 1999.
- Clark, Timothy. 'Destructive Creativity: *Alastor* (1815)'. *Shelley*. Ed. Michael O'Neill. London: Longman, 1993. 27-42.
- . *Embodying Revolution: The Figure of the Poet in Shelley*. Oxford: Clarendon, 1989.
- Clarke, Bruce, and Manuela Rossini, eds. *The Routledge Companion to Literature and Science*. 2010 (Abingdon; New York: Routledge, 2011).
- Clayton, Jay. *Charles Dickens in Cyberspace: The Afterlife of the Nineteenth Century in Postmodern Culture*. New York: Oxford UP, 2003.

---. 'Frankenstein's Futurity: Replicants and Robots'. *The Cambridge Companion to Mary*

Shelley. Ed. Esther Schor. Cambridge: Cambridge UP, 2003. 84-99.

Cline, C. L. *Byron, Shelley and Their Pisan Circle*. Cambridge, MA: Harvard UP, 1952.

Cochran, Peter. 'Byron and Shelley: Radical Incompatibles'. *Romanticism on the Net* 43

(2006). Web.

Coleridge, Samuel Taylor. *Biographia Literaria; or, Biographical Sketches of My Literary*

Life and Opinions. Ed. James Engell and Walter Jackson Bate. 2 vols. London: Routledge;

Princeton: Princeton UP, 1983.

Collodi, Carlo. *Pinocchio*. Trans. E. Harden. London: Puffin, 1974. Rpt. 1996.

Condillac, Etienne Bonnot de. *Treatise on the Sensations*. Trans. Geraldine Carr. Los Angeles:

U of Southern California P, 1930.

Corber, Robert J., and Stephen Valocchi. *Queer Studies: An Interdisciplinary Reader*. Oxford:

Blackwell, 2003.

Crane, Walter. *The Song of Sixpence: Picture Book*. London; New York: Lane, 1909. Web.

Crompton, Louis. *Byron and Greek Love: Homophobia in 19th-Century England*. London:

Faber, 1985.

Darwin, Charles. *The Expression of the Emotions in Man and Animals*. 1872. Cambridge:

Chadwyck-Healey, 1991.

Deane, Seamus. *The French Revolution and Enlightenment in England 1789-1832*.

Cambridge, MA; London: Harvard UP, 1988.

Descartes, René. *The World and Other Writings*. Trans. and ed. Stephen Gaukroger.

Cambridge: Cambridge UP, 1998.

D'Holbach, Baron. *The System of Nature; or, Laws of the Moral and Physical World*. Trans.

H. D. Robinson. New York: Tsel, 1836. Web.

Douthwaite, Julia V. 'The Frankenstein of the French Revolution: Nogaret's Automaton Tale of 1790'. *European Romantic Review* 20.3 (2009): 381-411.

Draper, Paul, ed. and intro. 'God or Blind Nature? Philosophers Debate the Evidence.

(2007-2008)'. Web. 10 February 2008. <[http:](http://www.infidels.org/library/modern/debates/great-debate.html)

www.infidels.org/library/modern/debates/great-debate.html>.

Drummond, William. *Academical Questions*. 1805. Delmar, NY: Scholars, 1984.

Duff, David. *Romance and Revolution: Shelley and the Politics of a Genre*. Cambridge:

Cambridge UP, 1994. Rpt. 1996.

Duffy, Cian. *Shelley and the Revolutionary Sublime*. Cambridge: Cambridge UP, 2005.

Eagleton, Terry. *The Ideology of the Aesthetic*. Oxford: Blackwell, 1990.

Eisler, Benita. *Byron: Child of Passion, Fool of Fame*. London: Hamilton, 1999.

Elfenbein, Andrew. *Byron and the Victorians*. Cambridge: Cambridge UP, 1995.

Elledge, Paul. 'Chasms in Connections: Byron Ending (in) Childe Harold's Pilgrimage 1 and 2', *ELH [English Literary History]* 62.1 (1995): 121-48.

Ellis, F. S. *A Lexical Concordance to the Poetical Works of Percy Bysshe Shelley*. London:

Quaritch, 1892.

Engell, James. *The Creative Imagination: Enlightenment to Romanticism*. Cambridge, MA:

Harvard UP, 1981.

Enscoe, Gerald. *Eros and the Romantics: Sexual Love as a Theme in Coleridge, Shelley and*

Keats. Paris: Mouton, 1967.

Etcoff, Nancy. *Survival of the Prettiest: The Science of Beauty*. New York: Anchor, 1999.

Evans, Bertrand. 'Manfred's Remorse and Dramatic Tradition'. *PMLA* 62.3 (1947): 752-73.

Evans, Dylan. *Emotion: The Science of Sentiment*. Oxford: Oxford UP, 2001.

Euripides. *Ten Plays by Euripides*. New York: Bantam, 1977.

Feynman, Richard. *The Meaning of It All: Thoughts of a Citizen-Scientist, Part Three: This*

Unscientific Age. Reading, MA: Perseus, 1998.

Florscu, Radu. *In Search of Frankenstein: Exploring the Myths Behind Mary Shelley's*

Monster. New York: Robson, 1996.

Foertsch, Jacqueline. 'The Right, the Wrong, and the Ugly: Teaching Shelley's Several

Frankensteins'. *College English* 63.6 (2001): 697-711.

Rev. of *Foliage; or, Poems Original and Translated*. By Leigh Hunt. *The Quarterly Review*

18 (1818): 324-35.

Foot, Paul. *Red Shelley*. London: Bookmarks, 1980. Rpt. 1988.

- Forry, Steven Earl. *Hideous Progenies: Dramatizations of Frankenstein from Mary Shelley to the Present*. Philadelphia: U of Pennsylvania P, 2000.
- Foucault, Michel. *The Will to Knowledge: The History of Sexuality*. 1976. Trans. Robert Hurley. Vol. 1. London: Penguin, 1998.
- Franklin, Caroline. *Byron's Heroines*. Oxford: Clarendon, 1992.
- Fredricks, Nancy. 'On the Sublime and Beautiful in Shelley's *Frankenstein*'. *Essays in Literature* 23.2 (1996): 178-89.
- Freeman, Barbara Claire. 'Frankenstein with Kant: A Theory of Monstrosity or the Monstrosity of Theory'. *Frankenstein: Contemporary Critical Essays*. Ed. Fred Botting. New York: Palgrave, 1995. 191-205.
- Fry, Paul H. *Wordsworth and the Poetry of What We Are*. New Haven; London: Yale UP, 2008.
- Fuller, David. 'Shelley and Jesus'. *The Durham University Journal* 54.2 (1993): 211-23.
- Galperin, William H. 'The Postmodernism of *Childe Harold*'. *Byron*. Ed. Jane Stabler. New York: Longman, 1998. 138-51.
- Garber, Frederick. *Self, Text, and Romantic Irony: The Example of Byron*. Princeton: Princeton UP, 1988.
- Gay, Peter. *The Enlightenment: An Interpretation: The Rise of Modern Paganism*. New York: Knopf, 1966.

---. *The Enlightenment: An Interpretation: The Science of Freedom*. 1970. London: Wildwood, 1979.

Gelpi, Barbara Charlesworth. *Shelley's Goddess: Maternity, Language, Subjectivity*. New York; London: Oxford UP, 1992.

Gigante, Denise. 'Facing the Ugly: The Case of *Frankenstein*'. *ELH* 67.2 (2000): 565-87.

---. *Life: Organic Form and Romanticism*. New Haven; London: Yale UP, 2009.

Gilbert, Sandra M., and Susan Gubar. *The Madwoman in the Attic: The Woman Writer and the Nineteenth-Century Literary Imagination*. New Haven; London: Yale UP, 1984.

Gilman, Sander L. *Creating Beauty to Cure the Soul: Race and Psychology in the Shaping of Aesthetic Surgery*. Durham, NC: Duke UP, 1998.

---. *Making the Body Beautiful: A Cultural History of Aesthetic Surgery*. Princeton: Princeton UP, 1999.

Gilmore, Paul. *Aesthetic Materialism: Electricity and American Romanticism*. Stanford: Stanford UP, 2009.

---. 'Romantic Electricity, or the Materiality of Aesthetics'. *American Literature* 76.3 (2004): 467-94.

Graham, John. 'Lavater's Physiognomy in England'. *Journal of the History of Ideas* 22 (1961): 561-72.

Grant, Vernon W. *The Psychology of Sexual Emotion: The Basis of Selected Attraction*. 1957.

- Westport, CT: Greenwood, 1979.
- Gray, Chris Hables, ed. *The Cyborg Handbook*. New York: Routledge, 1995.
- Greenfield, Susan A. *Journey to the Centers of the Mind: Toward a Science of Consciousness*.
New York: Freeman, 1995.
- . *The Human Brain: A Guided Tour*. London: Weidenfeld, 1997.
- Gross, Jonathan D. 'Recollecting Emotion in Traquility: Wordsworth and Byron in Cather's
My Ántonia and Lucy Gayheart'. *Cather Studies* 7 (2007): 119-39.
- Haiken, Elizabeth. *Venus Envy: A History of Cosmetic Surgery*. Baltimore; London: Johns
Hopkins UP, 1997.
- Hamilton, Paul. 'Literature and Philosophy'. *The Cambridge Companion to Shelley*. Ed.
Timothy Morton. Cambridge: Cambridge UP, 2006. 166-84.
- Hammermeister, Kai. *The German Aesthetic Tradition*. Cambridge: Cambridge UP, 2002.
- Haney II, William S. *Cyberculture, Cyborgs and Science Fiction: Consciousness and the
Posthuman*. Amsterdam; New York: Rodopi, 2006.
- Haraway, Donna. 'A Cyborg Manifesto: Science, Technology, and Socialist-Feminists in the
Late Twentieth Century'. *Contemporary Literature Criticism: Literary and Cultural
Studies*. Ed. Robert C. Davis and Ronald Schleifer. New York: Longman, 1994. 566-95.
- Hartley, Lucy. *Physiognomy and the Meaning of Expression in Nineteenth-Century Culture*.
Cambridge: Cambridge UP, 2001.

Hatch, James C. 'Disruptive Affects: Shame, Disgust, and Sympathy in *Frankenstein*'.

European Romanticism Review 19.1 (2008): 33-49.

Hawking, Stephen, and Leonard Mlodinow. *The Grand Design*. New York: Bantam, 2010.

Hayles, N. Katherine. *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*. Chicago: U of Chicago P, 1999.

Hayslip, Bert, and Cynthia A. Peveto. *Cultural Changes in Attitudes Toward Death, Dying, and Bereavement*. New York: Springer, 2005.

Herrmann, Christoph S., and Frank W. Ohl, 'Cognitive Adequacy in Brain-Like Intelligence', *Creating Brain-Like Intelligence: From Basic Principles to Complex Intelligence Systems*, et. al. Bernhard Sendhoff. Berlin; Heidelberg: Springer, 2009. 314-24, 316.

Hobbes, Thomas. *Leviathan*. N.p.: Forgotten, 2008. Web.

Hogarth, William. *The Analysis of Beauty*. Ed. Ronald Paulson. New Haven: Yale UP, 1997.

Hogg, Thomas Jefferson. *The Life of Percy Bysshe Shelley*. Ed. Deward Dowden. New York: Dutton, 1906.

Hogle, Jerrold E. 'Percy Bysshe Shelley'. *Literature of Romantic Period: A Bibliographical Guide*. Ed. Michael O'Neill. Oxford: Clarendon, 1998. 118-42.

---. *Shelley's Process: Radical Transference and the Development of His Major Works*. Oxford: Oxford UP, 1988.

Holmes, Richard. *The Age of Wonder: How the Romantic Generation Discovered the Beauty*

- and Terror of Science*. London: Harper, 2008. Rpt. 2009.
- . *Shelley: The Pursuit*. 1974. London: Flamingo, 1994.
- Hughes, A. M. D. *The Nascent Mind of Shelley*. Oxford: Clarendon, 1947. Rpt. 1971.
- Hume, David. *Four Dissertations*. London: n.p., 1757. 212-13. Web.
- . *Two Essays. I. On Suicide. II. On the Mortality of the Soul*. Edinburgh: Hunter, 1789.
- Web.
- Hutcheson, Francis. *Philosophical Writings*. Ed. R. S. Downie. London: Everyman, 1994.
- Hutchinson, Thomas, ed. *Shelley: Poetical Works*. London: Oxford UP, 1967.
- Huxley, Aldous. *Literature and Science*. 1963. Woodbridge, CT: Bow, 1991.
- Ingram, Rick E., ed. *The International Encyclopaedia of Depression*. New York: Springer, 2009.
- Jackson, Noel. *Science and Sensation in Romantic Poetry*. Cambridge: Cambridge UP, 2008.
- Jagose, Annamarie. *Queer Theory: An Introduction*. New York: New York UP, 1996. Rpt. 2004.
- James, D. G. *Byron and Shelley*. Nottingham: U of Nottingham P, 1951.
- James, William. *Essays in Radical Empiricism*. 1912. New York: Cosimo, 2007.
- . *The Principles of Psychology*. Vol. 2. Cambridge, MA: Harvard UP, 1981. 3 vols.
- . *The Will to Believe and Other Essays in Popular Philosophy*. 1897. New York: Cosimo, 2007.

---. 'What Is an Emotion?' *Mind* 9 (1884): 188-205.

Jarvis, Robin. *The Romantic Period: The Intellectual and Cultural Context of English*

Jones, Christine Kenyon. 'Byron's Voice'. *The Byron Journal* 37.2 (2009): 121-30.

Juengel, Scott J. 'Face, Figure, Physiognomics: Mary Shelley's *Frankenstein* and the Moving Image'. *Novel: A Forum on Fiction* 33.3 (2000): 353-76.

Kagan, Jerome. *Galen's Prophecy: Temperament in Human Nature*. New York: Basic, 1994.

Kakoudaki, Despina. *The Human Machine: Artificial People and Emerging Technologies*.

Diss. UC [University of California], Berkeley, 2000.

Kalat, James W. *Biological Psychology*. 10th ed. Belmont, CA: Wadsworth, 2009.

Kant, Immanuel. *Foundations of the Metaphysics of Morals and What Is Enlightenment?*

Trans. Lewis White Beck. Upper Saddle River, NJ: Prentice-Hall, 1997.

---. *Observations on the Feeling of the Beautiful and Sublime*. Trans. John T. Goldthwait.

Berkeley; Los Angeles; London: U of California P, 1960. Rpt. 2003.

Keegan, Abigail F. *Byron's Othello Self and Voice: Contextualizing the Homographic*

Signature. New York: Lang, 2003.

King-Hele, Desmond. *Erasmus Darwin and the Romantic Poets*. London: Macmillan, 1986.

---. *Shelley: His Thought and Work*. London: Macmillan; New York: St. Martin, 1960.

Knellwolf, Christa, and Jane Goodall, eds. *Frankenstein's Science: Experimentation and*

Discovery in Romantic Culture, 1780-1830. Aldershot; Burlington, VT: Ashgate, 2008.

Koelb, Clayton. *The Revivifying Word: Literature, Philosophy, and the Theory of Life in*

Europe's Romantic Age. Rochester, NY: Camden, 2008.

Kuhn, Thomas. *The Structure of Scientific Revolutions*. Chicago: U of Chicago P, 1962.

Labbe, Jacqueline M. *Romantic Visualities: Landscape, Gender and Romanticism*.

Basingstoke, Macmillan; New York: St. Martin, 1998.

LaFrance, Marc. "'She Exists Within Me': Subjectivity, Embodiment and the World's First

Facial Transplant'. *Abjectly Boundless: Boundaries, Bodies and Health Work*. Ed. Trudy

Rudge and Dave Holmes. Aldershot; Burlington, VT: Ashgate, 2010.

Lauritsen, John. 'Homoeroticism in *Epipsychidion*'. 2008. Web.

---. *The Man Who Wrote Frankenstein: Percy Bysshe Shelley*. Dorchester, MA: Pagan, 2007.

---. 'Piecing Together Percy'. *Gay and Lesbian Humanist*. 2001. Web.

Lavater, Johann Caspar. *Essays on Physiognomy; for the Promotion of Knowledge and the*

Love of Mankind. Trans. Thomas Holcroft. Vol. 1. London: n.p., 1789. Web.

Leary, Timothy. *The Politics of Ecstasy*. New York: Putnams, 1968.

LeDoux, Joseph E. *The Emotional Brain: The Mysterious Underpinnings of Emotional Life*.

London: Weidenfeld, 1998.

Lehman-Wilzing, Sam N. 'Frankenstein Unbound: Towards a Legal Definition of Artificial

Intelligence'. *Futures* 13.6 (1981): 442-57.

Locke, John. *An Essay Concerning Human Understanding*. Ed. Alexander Campbell Fraser.

Vol. 1. Oxford: Clarendon, 1894.

Logan, Peter Melville. 'Imitation of Insanity and Victorian Medical Aesthetics'. *Romanticism and Victorianism on the Net* 49 (2008). Web.

Long, A. A. *Stoic Studies*. Cambridge: Cambridge UP, 1996. Rpt. 1999.

Lovejoy, O. 'Pragmatism and the New Materialism'. *The Journal of Philosophy* 19.1 (1992): 5-15.

Lucretius. *De Rerum Natura*. Trans. W. H. D. Rouse. 2nd ed. Cambridge, MA: Harvard UP; London: Heinemann, 1982.

Lutz, Deborah. *The Dangerous Lover: Gothic Villains, Byronism, and the Nineteenth-Century Seduction Narrative*. Columbus, OH: Ohio State UP, 2006.

Lynch, Deidre. 'Overloaded Portraits: The Excesses of Character and Countenance'. *Body & Text in the Eighteenth Century*. Ed. Veronica Kelley and Dorothea von Mücke. Stanford: Stanford UP, 1994. 112-43.

Lyons, William. *Matters of the Mind*. Edinburgh: Edinburgh UP, 2001.

Mackillop, James. *A Dictionary of Celtic Mythology*. 1998. Oxford: Oxford UP, 2004.

Manning, Peter J. *Byron and His Fictions*. Detroit: Wayne State UP, 1978.

Marshall, Tim. *Murdering to Dissect: Grave-Robbing, Frankenstein, and the Anatomy Literature*. Manchester: Manchester UP, 1995.

Martin, Morag. *Selling Beauty: Cosmetics, Commerce, and French Society, 1750-1830*.

- Baltimore: Johns Hopkins UP, 2009.
- Maslin, K. T. *An Introduction to the Philosophy of Mind*. Cambridge; Malden, MA: Polity, 2001. Rpt. 2005.
- McGann, Jerome J. *Don Juan in Context*. London: Murray, 1976.
- . *Fiery Dust: Byron's Poetic Development*. Chicago; London: U of Chicago P, 1968.
- McShea, Daniel W. 'Feeling as the Proximate Cause of Behavior'. *Where Biology Meets Psychology: Philosophical Essays*. Ed. Valerie Gray Hardcastle. Cambridge, MA: London: MIT, 1999. 181-200.
- McWhir, Anne. 'Teaching the Monster to Read: Mary Shelley, Education and *Frankenstein*'. *The Educational Legacy of Romanticism*. Ed. John Willinsky. Waterloo, CA: Wilfrid Laurier UP, 1990. 73-92.
- Mellor, Anne K. Rev. of *In Frankenstein's Shadow: Myth, Monstrosity, and Nineteenth-Century Writing*, by Chris Baldick. *Modern Philosophy* 87 (1998): 193-95.
- . *Mary Shelley: Her Life, Her Fiction, Her Monsters*. New York: Routledge, 1988.
- La Mettrie, Julien Offray de. *Machine Man and Other Writings*. Trans. Ann Thomson. Cambridge: Cambridge UP, 1996.
- Milton, John. *Paradise Lost*. Ed. Alastair Fowler. 2nd ed. London; New York: Longman, 1998.
- Modell, Arnold H. *Imagination and the Meaning of the Brain*. Cambridge, MA: MIT, 2003.

Morton, Timothy, ed. *A Routledge Literary Sourcebook on Mary Shelley's Frankenstein*.

London: Routledge, 2002.

Müller, Ulrich, Jeremy I. M. Carpendale, and Leslie Smith, eds, *The Cambridge Companion to Piaget*. Cambridge: Cambridge UP, 2009.

Nalbantian, Suzanne. *Memory in Literature: From Rousseau to Neuroscience*. Basingstoke: Palgrave-Macmillan, 2003.

Neuroscience: Science of the Brain. Liverpool: British Neuroscience Association, 2003.

Notopoulos, James A. *The Platonism of Shelley: A Study of Platonism and the Platonic Mind*. Durham, NC: Duke UP, 1949.

O'Brien, Edna. *Byron in Love: A Short Daring Life*. New York: Norton, 2009.

O'Gorman, Frank. *The Long Eighteenth Century: British Political and Social History, 1688-1832*. London; New York: Arnold, 1997.

O'Keefe, Tim. *Epicurus on Freedom*. Cambridge: Cambridge UP, 2005.

O'Neill, Michael. *The Human Mind's Imaginings: Conflict and Achievement in Shelley's Poetry*. Oxford: Clarendon, 1989.

Oort, Richard van. 'Cognitive Science and the Problem of Representation'. *Poetics Today* 24.2 (2003): 238-95.

Ortolano, Guy. *The Two Cultures Controversy: Science, Literature and Cultural Politics in Postwar Britain*. Cambridge: Cambridge UP, 2008.

Otis, Laura. 'Science of the Mind'. *Literature and Science in the Nineteenth Century: An Anthology*. Ed. Laura Otis. Oxford: Oxford UP, 2002. 325-31.

Ousby, Ian. *The Cambridge Guide to Literature in English*. Rev. ed. Cambridge: Cambridge UP, 2003.

Ovid. *The Metamorphoses of Ovid*. Trans. Mary M. Innes. New York: Penguin, 1955. Rpt. 1981.

Pachter, Henry M. *Magic into Science: The Story of Paracelsus*. 1951. Sumner, IL: Sumner, 2007. Web.

Perry, Elaine, Heather Ashton, and Allan Young, eds. *Neurochemistry of Consciousness*. Amsterdam; Philadelphia: Benjamins, 2002.

Peterfreund, Stuart. *Shelley Among Others: The Play of the Intertext and the Idea of Language*. Baltimore: Johns Hopkins UP, 2002.

Pfau, Thomas. *Romantic Moods: Paranoia, Trauma, and Melancholy, 1790-1840*. Baltimore: Johns Hopkins UP, 2005.

Piaget, Jean. *Biology and Knowledge: An Essay on the Relations Between Organic Regulations and Cognitive Processes*. 1966. Chicago: U Chicago P, 1971.

Pinch, Adela. *Strange Fits of Passion: Epistemologies of Emotion, Hume to Austen*. Stanford: Stanford UP, 1996.

Plato. *The Symposium*. Trans. Christopher Gill. London: Penguin, 1999.

- Plotnitsky, Arkady. 'All Shapes of Light: The Quantum Mechanical Shelley'. *Shelley: Poet and Legislator of the World*. Ed. Stuart Curran and Betty Bennett. Baltimore: Johns Hopkins UP, 1996. 263-73.
- Pollin, Burton R. 'Philosophical and Literary Sources of *Frankenstein*'. *Comparative Literature* 17.2 (1965): 97-108.
- Pratt, James Bissett. 'The New Materialism'. *The Journal of Philosophy* 19.1 (1992): 337-51.
- Pulos, C. E. *The Deep Truth: A Study of Shelley's Scepticism*. Lincoln, NE: U of Nebraska P, 1962.
- . 'Discontent with Materialism in Shelley's Letters to Elizabeth Hitchener'. *Modern Language Notes* 66 (1951): 476-77.
- Quennell, Peter. *Byron: The Years of Fame & Byron in Italy*. London: Collins, 1974.
- Rawes, Alan. *Byron's Poetic Experimentation: Childe Harold, the Tales, and the Quest for Comedy*. Aldershot; Burlington, VT: Ashgate, 2000.
- Ray, Manjushree, and Enakshi Saha. *Anaesthesia for Undergraduates and Practitioners*. Kolkata: Academic, 2008.
- Read, Herbert. *In Defence of Shelley and Other Essays*. London; Toronto: Heinemann, 1936.
- Reid, Thomas. *An Inquiry into the Human Mind: On the Principles of Common Sense*. 3rd ed. Dublin: n.p., 1779. Web.
- Reiman, Donald H., and Neil Fraistat, eds. *Shelley and His Circle, 1773-1822*. 10 Vols.

Cambridge, MA: Harvard UP, 1986. Vol. 8.

Rhodes, Gillian. 'The Evolutionary Psychology of Facial Beauty'. *Annual Review of Psychology* 57 (2006): 199-226.

Rhys, Roberts, ed. and intro. *Longinus on the Sublime*. 2nd ed. Cambridge: Cambridge UP, 1907. Rpt. 1935.

Richardson, Alan. *British Romanticism and the Science of the Mind*. Cambridge: Cambridge UP, 2001.

---. 'From *Emile* to *Frankenstein*: The Education of Monsters'. *European Romantic Review* 1.2 (1991): 147-62.

---. *The Neural Sublime: Cognitive Theories and Romantic Texts*. Baltimore: Johns Hopkins UP, 2010.

---. 'Of Heartache and Head Injury: Minds, Brains, and the Subject of *Persuasion*'.

Romanticism: Critical Concepts in Literary and Cultural Studies. Ed. Michael O'Neill and Mark Sandy. Vol. 2. London; New York: Routledge, 2005. 301-21.

Richardson, Alan, and Francis F. Steen, eds. *Literature and the Cognitive Revolution*. Spec. issue of *Poetics Today* 23 (2002).

Ridley, Matt. *Nature via Nurture: Genes, Experience and What Makes Us Human*. London: Fourth, 2003.

Roberts, Hugh. *Shelley and the Chaos of History: A New Politics of Poetry*. University Park,

- PA: Pennsylvania State UP, 1997.
- Robinson, Charles E. *Shelley and Byron: The Snake and Eagle Wreathed in Fight*. Baltimore: Johns Hopkins UP, 1976.
- Rollin, Bernard E. *The Frankenstein Syndrome: Ethical and Social Issues in the Genetic Engineering of Animals*. Cambridge: Cambridge UP, 1995.
- Rothschuh, Karl E., and Guenter B. Risse. *History of Physiology*. New York: Krieger, 1973.
- Rousseau, G. S., and Roy Porter, eds. and intro. *Sexual Underworlds of the Enlightenment*. Manchester: Manchester UP, 1987.
- Rousseau, Jean-Jacques. *Emilius and Sophia; or, A New System of Education*. Trans. Eloisa [William Kenrick]. Vol. 1. London: n.p., 1762. Web.
- Rubin, Gayle S. 'Thinking Sex: Notes for a Radical Theory of the Politics of Sexuality'. *Culture, Society and Sexuality: A Reader*. Ed. Richard Guy Parker and Peter Aggleton. London: University College London P, 1999. 143-78.
- Ruddick, W. 'Don Juan in Search of Freedom: Byron's Emergence as a Satirist'. *Byron: A Symposium*. Ed. John D. Jump. London; Basingstoke: Macmillan, 1975. 113-37.
- Ruston, Sharon. *Literature and Science*. Woodbridge; Rochester, NY: Brewer, 2008.
- . *Shelley and Vitality*. New York: Palgrave-Macmillan, 2005.
- Sandy, Mark. "'The Colossal Fabric's Form': Remodelling Memory, History, and Forgetting in Byron's Poetic Recollections of Ruins'. *Romanticism and Victorianism on the Net* 51

- (2008). Web.
- . “‘Visioned Wanderings’: Quest Poetry in *Alastor* and *Epipsychidion*’. *The Oxford Handbook to Shelley Studies*. Ed. Michael O’Neill and Tony Howe. Oxford: Oxford UP, 2011. [Forthcoming]
- Schoene-Harwood, Berthold, ed. *Mary Shelley Frankenstein: A Reader’s Guide to Essential Criticism*. Cambridge: Icon, 2000.
- Schwartz, Janelle A. ‘Worm Work: Eighteenth-Century Natural History and Romantic Aesthetic Frontiers’. Diss. U of Wisconsin, 2008.
- Sedgwick, Eve Kosofsky. *Between Men: English Literature and Male Homosocial Desire*. New York: Columbia UP, 1985.
- Seeley, J., and J. Wricht. *The Annual Register or a View of the History, Politics and Literature, for the Year 1803*. London: Longman, 1805. Web.
- Sha, Richard C. *Perverse Romanticism: Aesthetics and Sexuality in Britain, 1750-1832*. Baltimore: Johns Hopkins UP, 2009.
- Shannon, Thomas A. ‘Human Nature in a Post-Human Genome Project World’. *Is Human Nature Obsolete? Genetics, Bioengineering, and the Future of the Human Condition*. Ed. Harold W. Baillie and Timothy K. Casey. Cambridge, MA: MIT, 2005. 270-316.
- She-Ru Kao, ‘Lord Byron and His Masquerade of Emotions’. Web. 22 Nov. 2008.
- Shinn, Owen L. ‘The Discovery of Oxygen’. *Journal of the American Chemical Society* 16

(1894): 718-19.

Sleigh, Charlotte. *Literature and Science*. Basingstoke; New York: Palgrave-Macmillan, 2010.

Smith, Martin Ferguson, ed. and intro. *On the Nature of Things*. By Lucretius. Indianapolis, IN: Hackett, 2001.

Smith, Roger. *Being Human: Historical Knowledge and the Creation of Human Nature*. Manchester: Manchester UP, 2008.

Smith, Sydney, et al. 'Aldini's Account of the Late Improvements in Galvanism', *The Edinburgh Review, or Critical Journal*, vol. 3 (London: Longman, 1804) 194-98. Web.

Snow, C. P. *The Two Cultures*. 1955. Cambridge: Cambridge UP, 1993.

Soderholm, James. *Fantasy, Forgery and the Byron Legend*. Lexington, KY: UP of Kentucky, 1996.

Sperry, Stuart M. *Shelley's Major Verse: The Narrative and Dramatic Poetry*. Cambridge, MA: Harvard UP, 1988.

Spinoza, Benedict de. *Ethics*. Ed. Trans. Edwin Curley. London: Penguin, 1996.

---. *Ethics*. Trans. Andrew Boyle. N.p.: Dent, 1934. Web.

Spivak, Gayatri Chakravorty. 'Three Women's Texts and a Critique of Imperialism'. *Critical Inquiry* 12.1 (1985): 243-61.

Stabler, Jane. *Byron, Poetics and History*. Cambridge: Cambridge UP, 2002.

Stearns, Peter N. *Fat History: Bodies and Beauty in the Modern West*. New York: New York UP, 1997.

Stone, Lawrence. *The Family, Sex, and Marriage in England 1500-1800*. Abr. ed. New York: Harper, 1979.

Swain, Virginia E. *Grotesque Figures: Baudelaire, Rousseau, and the Aesthetics of Modernity*. Baltimore: Johns Hopkins UP, 2004.

Taupitz, Jochen, and Marion Weschka. *Chimbrids: Chimera and Hybrids in Comparative European and International Research*. London; New York: Springer, 2009.

Thurgood, Lois R. 'The Dim Splendor: A Study of *Paracelsus*, *Alastor*, *Endymion* and *Manfred*'. Diss. Dalousie U, 1951.

Townsend, Charles Markham. 'Byron's *Manfred* and Shelley's *Alastor*: Narcissism and the Search for an Ideal'. Diss. Montclair State U, 2007.

Tuite, Clara. 'Tainted Love and Romantic Literary Celebrity'. *ELH* 74.1 (2007): 59-88.

Turney, Jon. *Frankenstein's Footsteps: Science, Genetics and Popular Culture*. New Haven: Yale UP, 1998.

Tweedy, Roderick Sebastian. 'The Visionary Mechanic: Shelley's Early Philosophy of Nature'. Diss. U of Oxford, 1996.

Twitchell, James. 'The Supernatural Structure of Byron's *Manfred*'. *Studies in English Literature, 1500-1900* 15.4 (1975): 601-14.

Ulmer, William A. *Shelleyan Eros: The Rhetoric of Romantic Love*. Princeton: Princeton UP, 1990.

Vasbinder, Samuel H. *Scientific Attitudes in Mary Shelley's Frankenstein*. 2nd ed. Michigan: UMI Research, 1984.

Wasserman, Earl R. *Shelley: A Critical Reading*. Baltimore; London: Johns Hopkins UP, 1971. Rpt. 1975.

Watkins, Daniel P. *A Materialist Critique of English Romantic Drama*. Gainesville, FL: UP of Florida, 1993.

Weinberg, Alan M., and Timothy Webb, eds. *The Unfamiliar Shelley*. Ed. Aldershot; Burlington, VT: Ashgate, 2009.

Weisman, Karen A. *Imageless Truths: Shelley's Poetic Fictions*. Philadelphia: U of Pennsylvania P, 1994.

Wilson, Philip K. 'Eighteenth-Century 'Monsters' and Nineteenth-Century 'Freaks': Reading the Maternally Marked Child'. *Literature and Medicine* 21.1 (2002): 1-25.

Wilson, Robert Andrew, and Frank C. Keil. *The MIT Encyclopaedia of the Cognitive Sciences*. Cambridge, MA: MIT, 2001.

Winckelmann, Johann Joachim. *Reflections on the Painting and Sculpture of the Greeks*. London: Routledge; Thoemmes, 1999.

Wolfe, Cary. *What Is Posthumanism?* Minneapolis, MN: U of Minnesota P, 2010.

- Wolfson, Susan J. 'Don Juan and the Shifting of Gender'. *Palgrave Advances in Byron Studies*. Ed. Jane Stabler. New York: Palgrave-Macmillan, 2007. 257-80.
- Wollstonecraft, Mary. *A Vindication of the Rights of Men; with A Vindication of the Rights of Women, and Hints*. Cambridge: Cambridge UP, 1995.
- Woodman, Ross G. *The Apocalyptic Vision in the Poetry of Shelley*. Toronto: U of Toronto P, 1964.
- Woodman, Ross. *Sanity, Madness, Transformation: The Psyche in Romanticism*. Toronto: U of Toronto P, 2005.
- Wroe, Ann. *Being Shelley: The Poet's Search for Himself*. London: Cape, 2007.
- Yeats, W. B. *W. B. Yeats: The Major Works*. Ed. Edward Larrissy. Oxford: Oxford UP, 1997.
- Young, Ione Dodson, ed. *A Concordance to the Poetry of Byron*. Vol. 4. Austin, TX: Best, 1965. Rpt. 1975.
- Yousef, Nancy. *Isolated Cases: The Anxieties of Autonomy in Enlightenment Philosophy and Romantic Literature*. Ithaca, NY: Cornell UP, 2004.
- Zimmerman, Phyllis. *Shelley's Fiction*. Los Angeles: Darami, 1998.
- Zunshine, Lisa. *Strange Concepts and the Stories They Make Possible*. Baltimore: Johns Hopkins UP, 2008.

Other Relevant Reference Resources:

The American Society of Plastic Surgeons. Web.

The British Society for Literature and Science. Web.

The Centre for Eighteenth Century Studies. York University. Web.

The Centre for Eighteenth-Century Studies at the University of York. Web.

The Centre for Sleep and Consciousness, U of Wisconsin – Madison. Web.

Encyclopædia Britannica. Web.

IMDb [The Internet Movie Database]. Web.

The International Society for Cultural History. Web.

Kismet. Web.

LGBT Studies at Yale University. Yale U. Web.

The Oxford English Dictionary. Web.

Stanford Encyclopaedia of Philosophy. Web.

The Society for Literature, Science, and the Arts. Web.

The Society for Social Studies of Science. Web.

The Wellcome Trust. Web.